

McNary-John Day Transmission Line Project

Abbreviated Final Environmental Impact Statement

August 2002



DOE-EIS-0332

McNary-John Day Transmission Line Project

Final Environmental Impact Statement (EIS)

(DOE/EIS-0332)

Responsible Agency: Bonneville Power Administration (Bonneville), U.S. Department of Energy (DOE)

Cooperating Agencies: U.S. Department of Interior: U.S. Fish and Wildlife Service, Bureau of Land Management, and Bureau of Indian Affairs. Department of Army: Corps of Engineers.

States Involved: Oregon and Washington

Abstract: Bonneville is proposing to construct, operate, and maintain a 79-mile-long 500-kilovolt-transmission line in Benton and Klickitat Counties, Washington, and Umatilla and Sherman Counties, Oregon. The new line would start at Bonneville's McNary Substation in Oregon and would cross the Columbia River just north of the substation into Washington. The line would then proceed west for about 70 miles along the Columbia River. At the John Day Dam, the line would again cross the Columbia River into Oregon and terminate at Bonneville's John Day Substation. The new line would parallel existing transmission lines for the entire length; mostly within existing available right-of-way. Presently, the existing transmission lines in the area are operating at capacity. These lines help move power from the east side of the Cascades to the west side, where there is a high need for electricity (cities along the I-5 corridor). Because the Northwest has only recently recovered from a shortfall in electric energy supply and a volatile wholesale power market in which prices reached record highs, there are many new proposals for facilities to generate new power. Some of these facilities are in the vicinity of the McNary-John Day project; the proposed line would help insure that existing and newly generated power could move through the system. Bonneville is also considering the No Action Alternative and several short-line routing alternatives. The short routing alternatives include three half-mile-long routes for getting from the McNary Substation to the Columbia River crossing; three two-mile-long routes where the Hanford-John Day transmission line joins the existing corridor; two 1,000-foot-long routes at corridor mile 32; and two 500-foot-long routes at corridor mile 35.

This abbreviated final EIS consists of an introduction to the document, changes to the draft EIS, copies of all the comments received on the draft EIS, and Bonneville's written responses to the comments. The final EIS should be used as a companion document to the draft EIS (dated February 2002), which contains the full text of the affected environment, environmental analysis, and appendices.

Bonneville expects to issue a Record of Decision on the proposed project in October 2002.

To receive additional copies of the Final EIS and/or Draft EIS:

Call 1-800-622-4520; record your name, address, and which documents you would like;

Access our web site at <http://www.efw.bpa.gov>, click on environmental planning/analysis, Active Projects; or

Write to: Bonneville Power Administration
Communications Office - KC-7
P.O. Box 12999
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For information on DOE National Environmental Policy Act (NEPA) activities, please contact:

Carol Borgstrom, Director, Office of NEPA Policy and Compliance, EH-42, U.S. Department of Energy, 1000 Independence Avenue SW, Washington D.C. 20585, 1-800-472-2756; or visit the DOE NEPA Web at www.eh.doe.gov/nepa.

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Chapter 1

Introduction

This document is the final Environmental Impact Statement (EIS) for Bonneville Power Administration's (Bonneville's) proposed McNary-John Day Transmission Line Project. This document has been prepared as an "abbreviated" final EIS pursuant to the Council on Environmental Quality's (CEQ) National Environmental Policy Act (NEPA) regulations because there have been no substantial changes to the proposed action, alternatives, or environmental analysis presented in the draft EIS for this project. Consistent with 40 C.F.R. 1503.4(c), this abbreviated final EIS provides comments received on the draft EIS, agency responses to these comments, and changes made to the text of the draft EIS. This final EIS should be used as a companion document to the draft EIS (dated February 2002), which contains the full text of the affected environment, environmental analysis, and appendices. For readers of this final EIS who do not already have a copy of the draft EIS, copies of the draft EIS may be obtained by several means:

- calling Bonneville's document request line at 1-800-622-4520;
- sending an e-mail to Stacy Mason, Environmental Coordinator at slmason@bpa.gov; or
- accessing the document on Bonneville's web site at <http://www.efw.bpa.gov/cgi-bin/PSA/Introduction> (click on project links under "Environmental Projects").

The remainder of this introduction provides an overview of the proposed action and alternatives, the lead and cooperating agencies, the comment period for the draft EIS, and key changes to the draft EIS. Chapter 2 of this final EIS identifies the specific changes that have been made to the text of the draft EIS. Chapter 4 presents comments received on the draft EIS (organized by the chapters and sections of the draft EIS), as well as agency responses to these comments. Chapter 5 includes copies of comment letters, e-mails, telephone logs, and meeting summaries received on the draft EIS.

Summary of Proposed Action

Bonneville proposes to construct a 500-kilovolt (kV) transmission line from its McNary Substation to its John Day Substation, a distance of about 79 miles. The new line would begin at the existing McNary Substation in Umatilla City (Umatilla County, Oregon) near the Columbia River and cross the Columbia River into Washington between the McNary

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Dam and the Umatilla Bridge. The proposed line would then generally follow the Columbia River and State Route (SR) 14 west through Benton and Klickitat Counties. At the John Day Dam, the proposed line would cross back into Oregon and connect into the John Day Substation near Rufus (Sherman County, Oregon). The proposed line would generally parallel existing transmission lines in an existing corridor that runs between the McNary and John Day Substations. (Please see Vicinity Map.)

About 360 transmission towers would be needed to carry the wires (conductors) for the proposed transmission line. The towers typically would be 145 to 165 feet tall lattice steel towers with spans of 900 to 1,400 feet between towers. The towers would be similar to the towers of the existing lines that the proposed line would parallel. Each tower would occupy about 0.05 acre, with a temporary disturbance during construction of about 0.5 acre. In addition, a 1.3-acre expansion of the McNary Substation would be required to accommodate the line termination at this substation.

The new transmission line would require some upgrades to existing access roads (approximately 40 miles would need to be reconditioned and widened), construction of new access roads (about 8 miles of new road would need to be built), construction of new access road spurs (about 270 short spur roads, each about 250 feet long from an existing access road to a new tower), and some purchasing of new access road easement (for up to 30 roads in areas off of the right-of-way).

During the life of the project, Bonneville would perform routine, periodic maintenance and emergency repairs to the transmission line. Vegetation also would be maintained along the line for safe operation and to allow access to the line.

Summary of Alternatives

Bonneville is considering the Proposed Action, the No Action Alternative, and several short-line routing alternatives. The short-line routing alternatives are as follows:

- McNary Substation Alternatives – Alternative A - Relocate Building, Alternative B – Cross Wildlife Area, Alternative C - Bus Work in Wildlife Area;
- Hanford-John Day Junction Alternatives – Alternative A - North Side, Alternative B- South Side, Alternative C – South Side Highway;
- Corridor Mile 32 Alternatives – Alternative A - parallel existing line across tribal allotment, Alternative B – Move entire corridor off tribal property;
- Corridor Mile 35 Alternatives - Alternative A - parallel existing line across tribal allotment, Alternative B – Move entire corridor off tribal property.

**For security purposes,
maps and related graphics
have been removed
from the
electronic version
of this document.**

To obtain printed copies of these omitted items,
please contact the Environmental Lead for this Project:

Stacy Mason - KEC-4
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208

Lead and Cooperating Agencies

Bonneville is the lead agency under NEPA for the proposed action because Bonneville has proposed and would construct and operate the proposed transmission line. The U.S. Army Corps of Engineers, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, and Bureau of Indian Affairs are cooperating agencies in the development of this EIS because of their roles as managers of lands crossed or a need to make findings on the project.

Draft EIS Comment Period

In early March 2002, Bonneville made three separate mailings regarding the draft EIS to approximately 500 interested or affected governments, agencies, organizations, and individuals.

- One mailing included the draft EIS, a cover letter, and comment form.
- A second mailing was sent to individuals who had requested the draft EIS Summary.
- A third mailing informed people that the draft EIS was available and how they could receive a copy.

In total, approximately 450 Draft EISs and 65 EIS Summaries were distributed. Bonneville also posted the draft EIS on its website, sent a news release to media in the project area announcing availability of the draft EIS and how to request a copy, and published a notice in the monthly *BPA Journal* that is mailed to customers and others interested in the agency's work.

Three open-house style meetings were held in April 2002. The public meetings were held in Oregon and Washington: April 8, 2002 – Hermiston Community Center, Hermiston, Oregon; April 9, 2002 – Paterson School, Paterson, Washington; and April 10, 2002 – Roosevelt School, Roosevelt, Washington.

Bonneville's Constituent Account Executives contacted governmental agencies and public interest groups to invite them to the public meetings and to offer opportunities for one-on-one discussion on the draft EIS.

Meetings with the Payos Kuus Cuukwe Cooperating Group (with attendance from the Colville Confederated Tribes, Confederated Tribes and Bands of the Yakama Indian Nation, Confederated Tribes of the Umatilla Indian Reservation, and the Nez Perce Tribe) were held on February 7, 2002 (Walla Walla, Washington) and April 19, 2002 (Portland, Oregon) to discuss the draft EIS and to solicit comments.

The comment period officially closed on April 23, 2002, but Bonneville continued to accept comments through May 14, 2002 from agencies informing Bonneville that their

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comments would be late. Comment letters that were received after May 14, 2002 are printed in the final EIS and will be taken into consideration in the decision-making process, but Bonneville was not able to provide written responses to those comments in this final EIS.

Key Changes to the Draft EIS

The following summarizes the primary changes that have been made to the draft EIS. For a complete description of all changes to the draft EIS, please see Chapter 2.

- Provided an update on the Starbuck Power and Mercer Ranch Projects.
- Stated the Bonneville preferred and the environmentally preferred alternatives.
- Provided information on river tower crossings of the Columbia River at McNary and updated impacts and mitigation accordingly.
- Updated acreage of temporary disturbance from tower construction from 0.25 acre to 0.5 acre. Also updated all impact calculations (both in tables and text) as appropriate.
- Updated mileage of new access roads from 3 miles to 8 miles. Also, updated all impact calculations (both in tables and text) as appropriate.
- Updated width of disturbance from access roads from 50 feet for temporary and 16 feet for permanent to 25 feet for permanent and none for temporary. Also, updated all impact calculations (both in tables and text) as appropriate.
- Added information about potential blasting for tower construction.
- Provided additional information about Essential Fish Habitat.
- Provided additional information about the biological assessment for U.S. Fish and Wildlife Service and NMFS.
- Provided results from vegetation survey of state sensitive plant species.
- Provided results of archaeological surveys conducted with the Yakama Nation and a summary of the oral histories conducted by the Warm Springs Tribe.

Chapter 2

Changes to Draft EIS Text

This chapter identifies the specific changes to the text of the Draft EIS. Text changes are organized by the chapters and sections of the Draft EIS. For each change, the location of the change is identified by page and paragraph number of the Draft EIS. Where text has been modified, deleted text is indicated in “strikethrough” format and new text is underlined.

Summary

Purpose and Need for Action

Page S-3, paragraph 7 has been modified as follows:

In most cases, ~~A~~a trackhoe would be used to excavate an area for the footings. In solid rock areas where digging is not possible, blasting would be used. The excavated area would be at least 2 feet larger than the footings to be installed (if the soil is loose or sandy, then a wider hole may be necessary). Each tower would use an area about 0.05~~6~~ acre, with a temporary disturbance during construction of about ~~0.2~~0.50 acre (equipment, tower assembly, vehicle maneuvering, soils, etc.).

Page S-4, paragraph 3 has been modified as follows:

The new transmission line would require some upgrades to existing access roads (approximately 40 miles would need to be reconditioned and widened); construction of new access roads (about ~~3~~8 miles of new road would need to be built); construction of new access road spurs (about 270 short spur roads, each about 250 feet long from an existing access road to a new tower); and purchase of new easement (for up to 30 new access roads in areas off of the right-of-way).

Affected Environment, Environmental Impacts, and Mitigation

Page S-9, paragraph 1 has been modified as follows:

Approximately ~~47-63~~ acres (~~12-18~~ acres in cropland and ~~35-45~~ acres in grazing land) would be impacted during the construction of the new access roads and spur roads. Approximately ~~93-186~~ acres (~~29-58~~ acres of ~~upland cropland~~ and ~~64-128~~ acres of grazing land) would be impacted during the construction of the towers.

Page S-9, paragraph 4 has been modified as follows:

The permanent footprints of the towers would occupy approximately ~~19-18~~ acres total (6 acres of irrigated and nonirrigated cropland and ~~13-12~~ acres of grazing land). New access roads would occupy approximately ~~47-63~~ acres of additional area. The cropland no longer available for farm use would represent a small portion of the agricultural land in the project corridor and a negligible portion of agricultural land in each of the four affected counties. This would not appreciably disrupt the current and planned agricultural uses of the land in the four affected counties.

Page S-9, after last bullet item, text has been added as follows:

- Repair damages to access roads caused by or arising out of Bonneville use, leaving roads in good or better condition than prior to construction.
-

Page S-10, paragraph 6 has been modified as follows:

Construction of the proposed project would potentially remove vegetation and disturb the underlying soils in up to ~~222-289~~ acres. ~~This temporary~~ These impacts are projected to last up to one year and ~~has~~ have the potential to increase the rate of erosion along the corridor. In areas along the corridor where quaternary period loess soils have developed as a result of wind deposition, removal of vegetation would likely increase the rate of wind erosion.

Page S-11, bullet item 4 has been modified as follows:

- ~~Ensure graveled surfaces on access roads in areas of sustained wind.~~ In areas of potential wind erosion, apply gravel to access road surfaces.
-

Page S-11, bullet item 6 has been replaced as follows:

- ~~Develop additional mitigation measures (using a certified engineer) between corridor miles 39 and 41 due to the presence of an active landslide in the vicinity of tower 40/3.~~
 - In the area of landslide (corridor miles 39 and 41) do not construct any new roads within 100 feet of the slide area. Reshape existing access road with out-slope to provide drainage, and site the tower east of the area if possible.
-

Page S-11, text added after last bullet as follows:

- Consider helicopter construction in areas of steep slopes to lessen the size of access roads and temporary tower site impacts (laydown areas for materials).
-

Page S-13, after bullet item 3, new text has been added as follows:

- Where access roads cross a dry wash, the road gradient should be 0% to avoid diverting surface waters from the channel.
-

Page S-13, bullet items 6 and 7 have been revised as follows:

- ~~□ Avoid blasting during periods when salmonid eggs or alevins are present in gravels.~~
 - ~~□ Avoid blasting within 200 feet of fish-bearing or potentially fish-bearing streams.~~
 - Avoid blasting within 200 feet of fish-bearing or potentially fish-bearing streams during periods when salmonid eggs or alevins are present in gravels.
 - Conduct in-water work at the Columbia River during Corps of Engineers designated in-water work windows.
-

Page S-13, after bullet item 10 new text added as follows:

- Site staging areas away from stream beds.

For Columbia River water work:

- Site staging 150 feet or more from water body.
- If working within 150 feet of water body, check vehicles daily for leaks and diaper stationary power equipment.

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- Construct during recommended Corps in-water work windows for the Columbia River (December 1 through March 31).
 - Isolate in-water work area and capture and release fish from the work area under the supervision of a competent fisheries biologist experienced in capturing ESA-listed fish.
 - Use appropriate fish screens on all intakes and pumps.
-

Page S-15, paragraph 1 has been modified as follows:

Of the 43 acres of wetlands located within the project corridor, less than 1.0 acre of wetland area ~~no wetland areas~~ would be filled to construct the proposed project. Vegetation would be cut within wetlands for McNary Substation Alternative B where the line would cross the wildlife refuge.

Page S-16, bullet item 1 has been modified as follows:

- Locate structures, new roads, and staging areas so as to avoid waters of the U.S., including wetlands. Where avoidance is not possible, provide compensation for wetland impacts in accordance with Corps Section 404 permitting requirements.
-

Page S-17, paragraphs 3 and 4 have been modified as follows:

The U.S. Fish and Wildlife Service has identified one federally listed threatened species (Utes ladies' tresses) and one candidate plant species (northern wormwood) as having potential habitat present within the project corridor. Neither species was found during initial field surveys conducted in July 2001. Additional field surveys are being conducted to coincide with peak flowering periods.

The Washington Natural Heritage Program (WNHP) has identified the locations of known populations of four state sensitive plant species (Pauper's milkvetch, Snake River cryptantha, Piper's daisy, and smooth desert-parsley) in or adjacent to the project corridor. ~~potential habitat in or adjacent to the project corridor for two state sensitive plant species (Pauper's milkvetch and Snake River cryptantha) between structures 47/1 and 48/3. Both~~ All four species occur in dry, open, flat, or sloping areas in stable or stony soils, where the overall cover of vegetation is relatively low. Pauper's milkvetch is also associated with big sagebrush-bluebunch wheatgrass shrub-steppe communities.

Page S-17, paragraph 5 has been modified as follows:

The proposed transmission line expansion would result in both permanent and temporary impacts to vegetation within the project corridor from vegetation removal or trampling and soil compaction. Permanent impacts would total approximately ~~54~~83 acres. Temporary impacts would total ~~121~~211 to ~~134~~226 acres, depending upon the number and location of conductor tensioning sites.

Page S-17, last paragraph has been modified as follows:

The proposed project would result in temporary impacts to ~~24~~42 to ~~27~~44 acres of native plants and approximately ~~4~~7 acres of cryptogamic crusts. Permanent project impacts would require the removal of approximately ~~12~~19 acres of native plant species, and ~~2~~3 acres of cryptogamic crusts. Loss of the cryptogamic crusts could result in an increase in soil erosion and decreased soil nutrient and water retention.

Page S-18, paragraph 3 has been modified as follows:

The proposed expansion of the McNary Substation would result in the loss of approximately 2 acres of mixed native/nonnative grassland communities. The construction of a ~~new 3-mile-long~~8 miles of new access roads, and 270 (250-foot-long) spur roads would result in ~~95~~63 acres of ~~temporary~~permanent impacts to vegetation communities on the proposed route.

Page S-18, paragraph 4 has been modified as follows:

Operations and maintenance of new access roads would result in the permanent alteration of ~~31~~63 acres of existing vegetation communities in the proposed roadbeds. Impacts to local vegetative cover types during operation and maintenance of the access roads include continued disturbance and compaction of soils and the potential for spreading noxious weed species. An additional potential impact to local vegetation would be the risk of fire from vehicles driving along the access roads, particularly during dry periods.

Page S-19, bullet item 4 has been modified as follows:

- Minimize disturbance to native species and cryptogamic crusts to the extent possible during construction to prevent invasion by nonnative species and damage to cryptogamic crusts.
-

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Page S-19, after bullet item 8, text has been added as follows:

- If Utes ladies' tresses is found during August 2002 surveys, avoid construction or construction activities in that location.
- Avoid construction or construction activities at location of desert evening-primrose (*Oenothera caespitosa ssp. marginata*) near tower 47/1.

Page S-19, bullet item 9 has been modified as follows:

- Minimize disturbance to native shrub-dominated shrub-steppe communities~~species and~~ and cryptogamic crusts to the extent where possible during construction, to prevent invasion by nonnative species. Where not possible, consider compensatory habitat through either restoration or acquisition and preservation of shrub-steppe communities.

Page S-22, bullet 4 has been replaced as follows:

- ~~Limit the number of contractors to cultural resource site sensitive information on a need-to-know basis.~~
- On maps and in specifications provided to construction contractors, indicate cultural sites as generic avoidance areas to maintain site confidentiality.

Page S-22, bullet 5 has been replaced as follows:

- ~~Continue consultation with the Umatilla Tribes and the Yakama Nation to determine appropriate tribal monitoring for ground disturbing activities.~~
- Have a monitor on site for construction activities in and around sites eligible for listing in the National Register of Historic Places.

Determine sites to be monitored based on Bonneville practices for avoiding adverse effects to historic properties, tribal concerns and the Oregon and Washington SHPO concurrence.

Page S-22, bullet item 6 has been modified as follows:

- Continue consultation with the Umatilla Tribes, Warm Springs Tribes, and the Yakama Nation to set up consultation protocols on site mitigation and management.

Page S-22, bullet 7 has been modified as follows:

- Continue consultation with the Umatilla Tribes, the Warm Springs Tribes, and the Yakama Nation to ensure that the cultural and natural resources are protected.
-

Page S-22, after bullet 7, add a new bullet as follows:

- Conduct offsets and buffers around previously recorded and newly identified archaeological sites based on Bonneville practices for avoiding adverse effects to historic properties, tribal concerns and the Oregon and Washington SHPO concurrence.
-

Page S-22, bullet item 6 has been modified as follows:

- ~~If deemed appropriate, i~~Install line markers in avian flight paths or migration corridors, ~~such as near crop irrigation circles in the vicinity of the town of Paterson (north of the Umatilla National Wildlife Refuge) if appropriate and for the Columbia River crossings and the Rock Creek crossing.~~
-

Page S-35, bullet item 1 has been deleted as follows:

- ~~Because of the proximity of the proposed transmission line to agricultural fields, crop dusting pilots planning to enter the area would take suitable precautions to avoid collision with the proposed transmission lines.~~
-

Page S-35, new bullet has been added after last bullet on the page as follows:

- Should contaminated media be unexpectedly encountered during construction, work should stop and an environmental specialist called to characterize the nature and extent of contamination and determine appropriate State-approved measures to prevent spread and protect health and safety.
-

Purpose of and Need for Action (Chapter 1)

Need for Action

Page 1-2, paragraph 2 has been modified as follows:

Two of the generation facilities proposed in this area are the Starbuck Power Project (near Starbuck, Washington), and the Wallula Power Project (near Wallula, Washington). These gas-turbine facilities would generate a total of

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2,500-MW of power. The new transmission line would be necessary to allow the power from these facilities to integrate into the transmission system and would allow Bonneville to grant “firm” transmission service to these facilities. (Firm transmission service is reserved or scheduled availability of the transmission line for sending generated power for a specific term—usually a year or longer.) The Starbuck Power Project was put on hold in February 2002. If either the Starbuck or Wallula generation projects fail to be built, there are other proposed facilities in the area that would be able to utilize the line.

Other Projects or Documents Related

Page 1-5, paragraph 6 has been modified as follows:

This project has been put on hold and all environmental work on this generation project and its interconnection with Bonneville has been suspended. The Starbuck Power Project is a 1,200-MW natural gas-fired generation facility proposed by Starbuck Power Company, LLC that would be located near the town of Starbuck in Columbia County, Washington. Starbuck Power Company has requested an interconnection and upgrade to Bonneville’s transmission system (a 16-mile transmission line would be required). A joint state and federal EIS is being developed on the project. The proposed McNary-John Day transmission line would allow electricity generated from the Starbuck project to flow into the transmission system.

Page 1-6, paragraph 2 has been deleted as follows because the Mercer Ranch Project has been cancelled:

Mercer Ranch

~~The Mercer Ranch Project is an 850-MW natural gas-fired generation facility proposed by Cogentrix Energy, Inc., that would be located adjacent to the proposed McNary-John Day transmission line in Benton County, Washington. A joint state and federal EIS is being developed on the project. The proposed McNary-John Day transmission line would allow electricity generated from the Mercer Ranch project to flow into the transmission system. As part of the Mercer Ranch Project, a new substation would be built next to the right-of-way described in this EIS, and the proposed McNary-John Day transmission line would go in and out of that substation. The potential impacts of building the substation would be analyzed in the Mercer Ranch Project EIS.~~

Proposed Action and Alternatives (Chapter 2)

Existing Corridor

Page 2-1, paragraph 3 has been modified as follows:

There are three existing transmission lines that cross the river near McNary Substation. Up to two sets of river-crossing towers would be replaced for the proposed line. The existing towers farthest east are 345-kV towers owned by Bonneville that may need to be replaced with 500-kV towers. The transmission line towers farthest west (closest to the Umatilla Bridge) are 69-kV towers owned by Benton County Public Utility District (PUD). Benton County PUD is presently not using the towers, but is retaining them for future use when they need to run a transmission line from Oregon to Washington. Bonneville proposes to buy these tower locations and replace them with new 500-kV double-circuit towers that could hold a Bonneville two-lines and a Benton County PUD line. (double-circuit towers).

Page 2-2, paragraph 4 has been modified as follows:

~~Mereer Ranch, just north of corridor mile 27 is a location being proposed for a new generation facility. If this facility is approved and built, a new substation would have to be constructed adjacent to the existing transmission line corridor. The proposed McNary-John Day transmission line would be built through this substation. (See the section on Other Projects or Documents Related to this Project, Chapter 1, for more information about the Mereer Ranch Project.)~~ At around corridor mile 68, the new line would cross to the south side of the existing corridor and continue to the river crossing at John Day Dam.

New Easements

Page 2-4, new text has been added after bullet item 2 as follows:

- from corridor mile 65 to 67, a 150 to 200-foot right-of-way easement would be needed. This proposed right-of-way easement would be about 300 feet north of the existing right-of-way to avoid building on the steep slope.

Page 2-4, new text has been added after paragraph 2 as follows:

The towers exiting the McNary Substation and the towers at the river crossings would be larger than the typical towers. The towers on either side of the Columbia River at McNary would be about 315 feet tall in order to provide

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adequate conductor to river clearance for the approximate 2,000-foot span. The tower on the north side of the river at John Day would be about 340 feet tall; the tower on the south side would only be about 140 feet tall because it would be located on the hill, which naturally creates high clearance.

The five to six towers that would carry the conductor from the McNary Substation to the river crossing would be about 200 to 270 feet tall in order to span over the multitude of existing lines coming into the substation.

Page 2-4, paragraph above last bullet item on the page has been modified as follows:

Transmission towers are attached to the ground with footings. The footings are a metal assembly in the ground at each of the four tower corners. ~~Three~~ Four types of footings would be used depending on the terrain and tower type.

Page 2-4, paragraph 5 has been modified as follows:

The towers for the proposed new 500-kV line would be 145 to 165 feet tall lattice steel towers with spans of ~~1,150 to 1,500~~ 1,000 to 1,300 feet between towers. The towers would be similar to the towers of the existing lines (see figure 2-2). The towers would be made of galvanized steel and may appear shiny for two to four years before they dull with the weather. About 360 transmission towers would be needed to carry the wires (conductors) for the proposed transmission line, including about 20 towers in Oregon and 340 towers in Washington.

Page 2-5, new text has been added after bullet item 2 as follows:

Concrete footings are often used when a tower is built in water or a wet area. There are two types of concrete footings that could be used for the McNary river-crossing towers. One type of concrete footing is composed of 6 to 9-foot-wide steel-encased poured concrete with a piece of angle steel embedded for attachment of the tower leg. The footing can be over 40 feet deep in the ground (depending on the strength needed) and extend up to 11 feet above the ground surface. The second type of concrete footing is composed of a 12-by-12-foot wide concrete pad buried 20 feet deep. The pad may also need steel piles under it for further support. A concrete pier would be connected to the top of the pad and, like the shaft, could extend up to 11 feet above the ground surface. The top of the pier would have either a steel connection point for the tower leg, or have a piece of angle steel embedded for the tower leg connection.

Page 2-5, paragraph 1 has been modified as follows:

In most cases, Aa trackhoe would be used to excavate an area for the footings. In solid rock areas where digging is not possible, blasting would be used. The

excavated area would be at least 2 feet larger than the footings to be installed (if the soil is loose or sandy, then a wider hole may be necessary). Each tower would use an area of about 0.05 acre, with a temporary disturbance during construction of about ~~0.250.50~~ acres (equipment, tower assembly, vehicle maneuvering, soils, etc.). All of the soil and rock removed would be used to backfill the excavated area once the footings are installed.

Page 2-5, paragraph 5 has been modified as follows:

Bus work is used when a conductor cannot be strung between towers. With bus work, the electricity runs on a pipe set about 4530 or 41 feet off the ground. For safety reasons, the area surrounding the two towers on either end of the bus work and the pipe is fenced and graveled (similar to a small substation). Like a substation, the area must be kept free of vegetation.

Page 2-7, paragraph 1 has been modified as follows:

Access roads are the system of roads that Bonneville's construction and maintenance crews would use to get to the towers or tower sites along the line. The roads are designed to be used by cranes, excavators, supply trucks, boom trucks, log trucks, and line trucks. Bonneville prefers road grades to be 15% or less depending on the erosion potential of the soil. Roads are graded to provide a 16-foot-wide travel surface (somewhat wider on curves), with about a 20 to 25-foot-wide total area disturbed (including drainage ditches), depending on site conditions (slope of road, soils, terrain, etc.).

Page 2-7, bullet item 3 has been modified as follows:

- ~~**New roads.** About three miles of new road would need to be built from corridor mile 39 to 41 (4 miles east of Roosevelt). The terrain in this area is very steep. Because the new transmission line would be at a higher elevation than the existing lines, the grades of spur roads from the existing access road would be too steep. Instead, a parallel access road would be built at the elevation of the new towers in this section of line.~~
- **New roads.** A total of about 8 miles of new road would need to be built. The new roads would be in various locations along the proposed route where existing roads cannot reach the proposed tower sites due to steep slopes, have been rerouted to avoid wetlands, or have been obliterated. The new roads would be in the following locations: about 350 feet of road at corridor mile 2, accessing the north side river crossing towers; about 500 feet of road at corridor mile 13 within the right-of-way; about 3 miles of road between corridor mile 42 and 47; about 2.5 miles of road from a public road south to corridor mile 62; about 1 mile of road from a public road to towers in corridor

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mile 66; about 4,000 feet of road between corridor mile 70 and 71 to avoid wetlands; and about 900 feet of road at corridor mile 96 to access south side river crossing up on the bluff.

Page 2-9, paragraph 3 has been modified as follows:

Holes for tower footings are dug with a trackhoe (or blasted, if necessary) and footings put in place at each tower site. Towers are either assembled at the tower site and lifted into place by a large crane (30- to 100-ton-capacity) or assembled at a staging area and set in place by a large sky-crane helicopter. The towers are then bolted to the footings.

Page 2-10, text added as last bullet item as follows:

- 100-ton crane used to lift towers up onto their footings.
-

Page 2-14, text added after paragraph 2 as follows:

The Bonneville preferred and environmentally preferred alternatives are as follows:

- The Bonneville preferred alternative is the Proposed Action (to construct the McNary–John Day Line) with the following short-line routing alternatives: McNary Substation Alternatives, Alternative A – Relocate Building; Hanford –John Day Junction Alternatives, Alternative A – North Side; Corridor Mile 32 Alternatives, Alternative A – Parallel Existing Line Across Tribal Allotment; Corridor Mile 35 Alternatives, Alternative A – Parallel Existing Line Across Tribal Allotment.
 - The No Action Alternative (not to construct the proposed line) is the environmentally preferred alternative.
-

Affected Environment, Environmental Consequences, and Mitigation (Chapter 3)

Land Use and Recreation

Page 3-2, paragraph 4 has been modified as follows:

Land use within the corridor is primarily agriculture (irrigated cropland, dryland wheat farming, and grazing). Irrigated agricultural uses in the project corridor include poplar tree farms, orchards, and a variety of crops such as potatoes, corn,

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onions, carrots, and asparagus. Some crops change annually. There are approximately ~~1,409~~1,412 acres of irrigated and non-irrigated cropland, ~~3,064~~3,067 acres of grazing land, and 2 acres of substation/wildlife land use in the project corridor. There are no lands designated as prime farmland in the project corridor. Table 3-1 summarizes the land uses and the corresponding Bonneville structure numbers within the project corridor. Residential and industrial/commercial land is also adjacent to the corridor (see discussion in the following section on Land Uses Adjacent to Project Corridor).

Page 3-8, paragraph 3 has been modified as follows:

Approximately ~~48-63~~ acres (~~12-18~~ acres in cropland and ~~35-45~~ acres in grazing land) would be impacted ~~during~~for the construction of the new access roads and spur roads (based on a 25-foot-wide construction area). Approximately ~~93-186~~ acres (~~29-58~~ acres of cropland and ~~64-128~~ acres of grazing land) would be temporarily impacted during the construction of the towers, based on an impact area of ~~0.25~~0.50 acre per tower.

Page 3-9, paragraph 2 has been modified as follows:

The permanent project facilities (not including access roads) would occupy approximately ~~19-20~~ acres total (6 acres of irrigated and nonirrigated cropland and ~~13-12~~ acres of grazing land and 2 acres of substation/wildlife area land). New access roads would occupy a permanent footprint of approximately ~~48-63~~ acres (based on a 25-foot impact area). Table 3-3 identifies the land uses affected by the permanent project footprint.

Page 3-12, after last bullet item, text has been added as follows:

- Repair damages to access roads caused by or arising out of Bonneville use, leaving roads in good or better condition than prior to construction.
-

Page 3-12, last paragraph has been modified as follows:

During construction, approximately ~~50-85~~ to ~~55-90~~ acres of irrigated and nonirrigated cropland and ~~116-190~~ to ~~125-199~~ acres of grazing land (shrub-steppe and grasslands) would be temporarily disturbed during construction.

Page 3-13, paragraph 1 has been modified as follows:

Following construction, approximately ~~68-83~~ acres of irrigated and nonirrigated cropland and grazing land would be converted to transmission line facilities during the life of the project. This includes a small percentage of agricultural land

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in Benton and Klickitat Counties in Washington and Umatilla and Sherman Counties in Oregon.

Geology, Soils, and Seismicity

Page 3-15, replace paragraph 1 with new text as follows:

~~A landslide area was observed in the vicinity of tower 40/3 during the field investigation conducted on May 23, 2001. Evidence that this landslide is recent and may continue include a barren vertical headwall scarp, open and acute tension cracks at the ground surface near both upper and lower access roads, and additional open tension cracks at the ground surface extending beneath the northwest footing of tower 40/3. Also, most of the area is not considered to be susceptible to liquefaction, which occurs primarily in weakly developed granular soils under saturated conditions.~~

A landslide area was observed adjacent to and north of McNary-Ross tower 40/3 during the contract field inspection of the proposed line conducted on May 23, 2001. The slide was first observed in 1996 after a period of heavy rainfall. Even though the original movement of the failure was about 2.5 feet, it has remained stable since that time. Bonneville geotechnical engineers have investigated the failure and believe that it is a shallow, rotational slump likely caused by water ponding on the access road during the heavy rainfall. The road in this area is in-sloped and proper drainage is not possible. Although a headwall scarp, tension cracks near the access roads, and tension cracks near tower 40/3 are present, further movement of the failure is of low probability. Proposed access road improvements will enhance the drainage and reduce the chance of movement even more. A new structure of the proposed McNary-John Day line will be sited east of this area, and no new roads will be located across the failure.

Page 3-16, paragraph 2 has been modified as follows:

Construction impacts would total ~~166-211~~ to 181-226 acres depending on the number and location of conductor tensioning sites. This temporary impact is projected to last up to one year and has the potential to increase the rate of erosion along the corridor. In areas along the corridor where quaternary period loess soils have developed as a result of wind deposition, removal of vegetation would likely increase the rate of wind erosion. Erosion rates would most likely return to their current level following construction if plants reestablished along the corridor, naturally, or through revegetation.

Page 3-16, paragraph 3 has been modified as follows:

Approximately 78 acres of existing roads would be reconditioned and widened for the project. About ~~48-63~~ acres of spur roads and new roads would be constructed for the project. Additionally, between 26 and 39 acres would be disturbed (perhaps cleared of vegetation) for conductor-tensioning sites along the project corridor. Approximately ~~93-186~~ acres would be disturbed and cleared of vegetation to construct the 360 transmission towers anticipated along the project corridor. Up to 2 acres would be disturbed and cleared of vegetation for substation work at McNary. Additionally, approximately 25 acres of poplar trees would likely need to be removed west of Glade Creek due to safety protocols. A total of 50 acres would be removed from cottonwood production.

Page 3-17, bullet item 4 has been modified as follows:

- ~~Ensure graveled surfaces on access roads in areas of sustained wind. In areas of potential wind erosion, apply gravel to access road surfaces.~~
-

Page 3-17, bullet item 6 has been replaced as follows:

- ~~Develop additional mitigation measures (using a certified engineer) between corridor miles 39 and 41 due to the presence of an active landslide in the vicinity of tower 40/3.~~
 - In the area of landslide (corridor miles 39 and 41) do not construct any new roads within 100 feet of the slide area. Reshape existing access road with out-slope to provide drainage, and site the tower east of the area if possible.
-

Page 3-17, text added after last bullet as follows:

- Consider helicopter construction in areas of steep slopes to lessen the size of access roads and temporary tower site impacts (laydown areas for materials).
-

Streams, Rivers, and Fish

Page 3-21, paragraph 1 has been modified as follows:

~~The proposed action could affect project corridor crosses~~ two fisheries protected by the Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Act (16 U.S.C. 1855(b)): which includes the chinook and coho salmon fisheries. All streams identified as either fish bearing or potentially fish bearing in the project area are included in designated EFH for these two fisheries. Chinook salmon that utilize the streams intersected by the project corridor are not currently federally listed, while coho salmon are a candidate for federal protection. However,

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steelhead trout are federally listed as a threatened species, and occur, or are likely to occur in the same streams along the project corridor as chinook or coho salmon. ~~Since steelhead trout are a federally listed species and their distribution overlaps with both chinook and coho, the analyses of current conditions and potential impacts to this species also serve to describe all potential impacts to EFH.~~

Page 3-23, paragraph 1 has been modified as follows:

On this basis, a 100-year flood event would reach elevations of 279 feet above-sea-level near the McNary Substation. However, the McNary Substation is located at approximately 290 feet, ~~while towers for the Columbia River crossing would range in elevation from 285 to 310 feet,~~ all above maximum pool levels (McGowin pers. comm.)

The river crossing towers on the south side of the Columbia River were constructed in the 1940's and 1950's with the original ground elevation at approximately 260 – 265 feet. After John Day Dam was completed in the late 1960's, fill was placed to the west and the north of the crossing towers to provide vehicular access when the normal pool elevation of 265 feet was reached. The driving surface of this fill is presently at an elevation of 274 feet. Crossing towers on the north side are sited at approximately 310 feet, above the maximum pool levels.

Page 3-24, paragraph 4 has been modified and new text added as follows:

Except for near McNary Substation, all tower footings would be located on upslope areas and conductors would span all streams. At McNary Substation, the river-crossing towers at the edge of the Columbia River would have a larger footprint than the existing towers they are replacing, requiring fill placement in a pond attached to the Columbia River. Potential impacts to the river and fish would be temporary increases in suspended sediments during construction, and removal of off-channel vegetated aquatic habitats.

Upslope tower work would require the disturbance of soils, thus exposing them to the erosive forces of wind and rain, which could potentially transport sediments to all streams along the project corridor, as well as the Columbia River, and adversely affect fish and fish habitat. All streams would be equally susceptible. If areas cleared for tower footings were reseeded or naturally revegetated after construction, the potential for erosion and sedimentation would be less than if left as bare soil. Tower footings would be drilled where possible, although some areas may require blasting.

Page 3-25, paragraph 3 has been modified as follows:

The project would require approximately 40 miles of existing roads to be reconditioned and upgraded and 12.5 miles of new “spur roads” constructed from existing access roads. This new access and spur road construction would include the clearing and grading of an area 16 feet wide, with an approximate impact area 25 feet wide. The width of disturbance for access roads would be approximately 20 to 25 feet, depending on site conditions (slope of road, soils, terrain, etc.). The impact area may include hill slopes where spoils from cut-and-fill road construction may be sent down slope. Roads would be located on stable hill slopes and road gradients would not exceed 15% in areas with potentially unstable soils. A total of 24 wetlands or other waters of the United States including drywashes would be crossed by access roads. Three miles of new access road would be constructed from corridor mile 39.42 to 41.47. This road would cross 16 several dry washes, all draining to the Columbia River, 2,000 to 3,000 feet downstream. The other approximate 5 miles of new road construction would cross drywashes at corridor miles 13, 34, 36, 48, 49, 50, and 66.

Page 3-26, text has been added after paragraph 1 as follows:

The proposed action and alternatives could affect two fisheries protected by the EFH provisions which includes the chinook and coho salmon fisheries. All streams identified as either fish bearing or potentially fish bearing in the project area are included in designated EFH for these two fisheries. Some streams are included because they may support spawning, rearing, and migratory use by chinook or coho salmon. Other streams are included because they are situated upstream of areas that could potentially be used by salmon, and salmon are sensitive to water quality. Chinook salmon that utilize the streams intersected by the project corridor are not currently federally listed, while coho salmon are a candidate for federal protection.

Chinook salmon and coho salmon are known to be present in the Columbia River and Chapman and Rock Creeks. Coho salmon may also potentially utilize habitat in Glade Creek and the unnamed tributary to Glade Creek. Spawning habitat within the project corridor is present in Glade and Rock Creeks, while all perennial streams along the project corridor could provide limited rearing habitat. The stream temperatures in many of the streams intersected by the project corridor have a naturally high summer time water temperature that exceeds optimum temperature for juvenile salmonids.

The Middle Columbia River ESU of chinook salmon are a spring-run fish. Typically, spring-run chinook salmon are considered “stream-type” fish in that they reside in fresh water as fry or parr for one year or more before smoltification. Coho salmon typically spend one to two years rearing in fresh water before smoltification.

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To ensure protection of EFH no riparian vegetation would be removed for the project. The only in-water work anticipated to be necessary at streams utilized or potentially utilized by either chinook salmon or coho salmon is the tower replacement adjacent to the Columbia River, south-side near McNary Substation. As explained on page 3-24, the potential impacts to salmon would be associated with the construction of tower footings at the Columbia River crossing near the McNary Dam. Tower construction associated with this crossing would result in the temporary degradation of water quality, and the removal of off-channel vegetated aquatic habitat.

Page 3-26, paragraph 2 has been modified as follows:

The work associated with the McNary Substation and the towers spanning the Columbia River adjacent to the Umatilla Bridge would occur within the FEMA-designated 100-year floodplain of the Columbia River. However, as stated earlier, except for the river crossing towers, the McNary Substation and the new towers are above the elevation of the 100-year flood event as designated by the U.S. Army Corps of Engineers, who can control the water level of the Columbia River via the dams.

Page 3-28, after bullet item 3, new text has been added as follows:

- Where access roads cross a dry wash, the road gradient should be 0% to avoid diverting surface waters from the channel.
-

Page 3-29, bullet items 6 and 7 have been revised as follows:

- ~~□ Avoid blasting during periods when salmonid eggs or alevins are present in gravels.~~
 - ~~□ Avoid blasting within 200 feet of fish-bearing or potentially fish-bearing streams.~~
 - Avoid blasting within 200 feet of fish-bearing or potentially fish-bearing streams during periods when salmonid eggs or alevins are present in gravels.
 - Conduct in-water work at the Columbia River during Corps of Engineers designated in-water work windows.
-

Page 3-29, after bullet item 10 new text added as follows:

- Site staging areas away from stream beds.

For Columbia River water work:

- Site staging 150 feet or more from water body.
 - If working within 150 feet of water body, check vehicles daily for leaks and diaper stationary power equipment.
 - Construct during recommended Corps in-water work windows for the Columbia River (December 1 through March 31).
 - Isolate in-water work area and capture and release fish from the work area under the supervision of a competent fisheries biologist experienced in capturing ESA-listed fish.
 - Use appropriate fish screens on all intakes and pumps.
-

Wetlands and Groundwater

Page 3-32, paragraph 5 has been modified as follows:

Of the 45 acres of wetlands located within the project corridor, less than ~~0.5~~1.0 acre of wetland would likely be filled to construct the proposed project. Twenty-four wetlands or waters of the U.S. would be crossed by access roads, and the river crossing-tower adjacent to the Columbia River near McNary Substation would require some wetland fill. Three main wetland complexes contain 73% of the wetlands located within the construction corridor: at the wildlife refuge near McNary Substation, corridor mile 1; the Roosevelt Grade Road from corridor mile 48 to 50; and in the basalt outcroppings east of Harvalum Substation at corridor mile 71 to 75. The other 27% of the wetlands are predominantly riparian wetland associated with the floodplains of perennial streams.

The construction of new access roads in association with the Hanford-John Day Alternatives B and C would potentially fill 0.1 acre of emergent wetlands. The wetlands are associated with a constructed stock pond fed by a well. The construction of an access road through this wetland would destroy emergent vegetation and divert surface flows, potentially affecting hydrological patterns within the greater wetland area.

Access road ford crossings of wetlands and other waters of the U.S. would potentially fill 0.25 acre of emergent wetlands and non-wetland drywashes. Short access road crossings of wetlands and drywashes would occur near corridor miles 13, 34, 36, 48, 49, 50, 66, 71, and 72. These fords would be designed to maintain surface hydrologic patterns and to stabilize road crossings in wet areas to prevent potential rutting and erosion from continued vehicle use. Road crossings would permanently remove vegetation, and could increase sedimentation within adjacent surface waters.

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Construction of two new tower footings on the south side of the Columbia River crossing the McNary Dam would require the filling of approximately 0.50 acre of wetland. The wetland is primarily dominated by invasive emergent and shrub vegetation fringing the existing tower sites in an off-channel portion of the Columbia River. Destruction of these wetlands would remove fish habitat and could result in a short-term increase in suspended sediments during construction.

Page 3-36, bullet item 1 has been modified as follows:

- Locate structures, new roads, and staging areas so as to avoid waters of the U.S., including wetlands. Where avoidance is not possible, provide compensation for wetland impacts in accordance with Corps Section 404 permitting requirements.
-

Page 3-37, paragraph 1 has been modified as follows:

The fill of less than 1 acre of wetland would be unavoidable. The fill is required for the river-crossing towers adjacent to the Columbia River at McNary Substation and for various access road crossings along the project corridor. A small amount of forested wetland vegetation would be removed with the short-line McNary Substation Alternatives A, B, and C. This would not result in a loss of wetland area; however, it would permanently change the wetland vegetation community from forested to shrub dominant.

Vegetation

Page 3-40, paragraph 5 has been modified as follows:

The U.S. Fish and Wildlife Service has identified one federally listed threatened species (Utes ladies' tresses) and one candidate plant species (northern wormwood) as having potential habitat present within the project corridor. Neither species was found during initial field surveys conducted in July 2001. Qualified botanists conducted an additional field survey in April 2002, during the peak flowering period of northern wormwood. No individuals or populations of northern wormwood were found during the additional survey. Botanists will conduct additional field surveys for Utes ladies' tresses prior to construction. These field surveys will take place in late August 2002 to coincide with the peak flowering period of Utes ladies' tresses.

Page 3-40, paragraph 6 and page 3-41 paragraphs 1, 2, and 3 have been modified as follows:

The Washington Natural Heritage Program (WNHP) has identified ~~potential habitat~~ the locations of known populations of two state sensitive plant species (Pauper's milkvetch and Snake River cryptantha) in or adjacent to the project corridor for two state sensitive plant species (Pauper's milkvetch and Snake River cryptantha) between structures 47/1 and 48/3. Both species occur in dry, open, flat, or sloping areas in stable or stony soils, where the overall cover of vegetation is relatively low. Pauper's milkvetch is also associated with big sagebrush-bluebunch wheatgrass shrub-steppe communities.

Neither plant species was found during field surveys conducted in July 2001. However, the field surveys verified that favorable habitat for both species is present in the WNHP-identified areas, between structures 47/1 and 48/2.

~~Potential habitat~~ Known locations for a third ~~two other~~ state sensitive species, Piper's daisy and smooth desert-parsley, ~~have~~ also been identified by WNHP. Piper's daisy populations are known to occur approximately 2 miles north of the project corridor, at structures 33/4 to 35/3. Smooth desert-parsley populations are known to occur in several locations approximately 2 miles north and east of the project corridor. The July 2001 field surveys of the project corridor found no Piper's daisy or smooth desert-parsley individuals or populations.

Botanists conducted additional field surveys for state-sensitive species in May 2002. The timing of the field surveys coincided with peak flowering periods for four target species. These were the state-sensitive species Pauper's milkvetch, Snake River cryptantha, Piper's daisy and smooth desert-parsley. The May 2002 field surveys also included searches for other State-sensitive species with April to June flowering periods.

None of the four target species were found during the July 2001 or May 2002 field surveys. However, one population of a state-sensitive species, the desert evening-primrose (*Oenothera caespitosa ssp. marginata*) was located near tower 47/1. No other state-sensitive species were found.

Page 3-42, last paragraph has been modified as follows:

The proposed transmission line expansion would result in both permanent and temporary impacts to vegetation within the project corridor. Permanent impacts would total approximately ~~68~~ 83 acres. Permanent impacts are those actions that result in the removal and loss of vegetation through construction and operation and maintenance of new facilities, and that do not allow for reestablishment of the preconstruction cover type. There are 3 sources of permanent impacts: operation of new towers, new access road operation and maintenance, and substation

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expansion. The permanent impacts to each vegetative cover type resulting from each of these actions are summarized in Table 3-12. Criteria used to determine permanent impact acreages are described later in this section.

Page 3-43, paragraph 2 has been modified as follows:

Temporary impacts would total ~~166-211~~ to 181-226 acres, depending upon the number and location of conductor tensioning sites. Temporary impacts are those actions that result in disturbance to vegetation during construction of the facilities, but do not result in permanent removal of vegetation, or preclude reestablishment of the preconstruction cover type.

Page 3-43, paragraph 3 has been modified as follows:

There are ~~three~~ two sources of temporary impacts: work areas around tower sites, ~~new access road construction~~, and conductor tensioning sites. The temporary impacts to each vegetative cover type resulting from each of these actions are summarized in Table 3-13. Criteria used to determine temporary impact acreages are described later in this section.

Page 3-44, paragraphs 1 and 2 have been modified as follows:

The construction of 8 miles of a new 3-mile-long access roads and 270 (250-foot-long) spur roads would result in ~~48-63~~ acres of ~~temporary-permanent~~ impacts to vegetation communities on the proposed route. ~~The permanent impacts are discussed in the following section on Impacts During Operations and Maintenance. The various vegetation communities temporarily impacted by construction of new access roads are presented in Table 3-13.~~ *[Space between paragraphs removed]* Of the area temporarily impacted, approximately half is in the grazed shrub-steppe vegetative cover type. ~~Temporary d~~Disturbance from new access road construction is not likely to noticeably alter the species composition of this cover type, because it is already dominated by those invasive species favored by disturbance.

Page 3-44, paragraph 3 has been deleted:

~~Grassland, seabland/lithosol, and shrub-dominated shrub-steppe communities would have somewhat lower acreages of temporary impacts from new access road construction. These cover types would recover more slowly from the temporary disturbance and would likely see increases in percent cover of invasive and/or disturbance-favored species such as cheatgrass. The recovery of agricultural areas from the temporary disturbance from new access road construction would~~

~~depend on the timing of replanting of the areas, and on local crop management practices such as hydroseeding of exposed soils.~~

Page 3-46, paragraph 4 has been modified as follows:

Operations and maintenance of new access roads would result in the permanent alteration of ~~48-63~~ acres of existing vegetation communities in the proposed roadbeds. This figure is based on an assumption of 270 new spur access roads, each about 250 feet long, with a 25-foot width, and eight miles of new access roads. In areas where cut or fill activities are required to build or support the roadbed, or at corners in roads, the permanent impact width would be wider.

Page 3-47, paragraph 3 has been modified as follows:

Impact acreage from access road operation would be highest in the grazed shrub-steppe cover type. ~~Ten~~ Thirty-two acres of this cover type would be converted to roadbed. Many of the existing two-track roadbeds in this cover type, and throughout the route, are dominated by low cheatgrass. As such they have a close affinity to the surrounding degraded shrub-steppe, even while converted to access roads. Impact acreage within higher quality vegetation communities (such as shrub-dominated shrub-steppe) are lower, but would result in the creation of new edge communities and a permanent avenue of invasion for nonnative and/or disturbance-favored species.

Page 3-47, after paragraph 5 new text has been added as follows:

Construction of a new tower or spur road in the location of the desert evening-primrose near tower 47/1 would destroy the plants that were found. (Please see mitigation measures.)

Page 3-48, paragraph 4 has been modified as follows:

Plant species that would be affected by the project would include the dominant species listed under each vegetation cover type ~~those listed in the Affected Environment section~~ described for the project. Additional plant species that are not dominants are also present in the project area and could be affected, but to a lesser extent. These include some of the species listed ~~and~~ in Appendix C. Grazing and agriculture have previously disturbed most of the proposed transmission line route. The invasive annual cheatgrass is the dominant species along much of the route. However, there are portions of the route that are dominated by native grasses and shrubs. These higher quality shrub-steppe communities are more vulnerable to the types of construction, operation, and maintenance activities required for the project.

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Page 3-48, paragraph 5 has been modified as follows:

The proposed project would result in the temporary removal of ~~34-42~~ to ~~37-44~~ acres of native plants and ~~approximately 6-7.2~~ to 7.4 acres of cryptogamic crusts. Permanent project impacts would require the removal of approximately ~~46-19~~ acres of native plant species, and ~~2-53~~ acres of cryptogamic crusts.

Page 3-52, after bullet item 8, text has been added as follows:

- If Utes ladies' tresses is found during August 2002 surveys, avoid construction or construction activities in that location.
 - Avoid construction or construction activities at location of desert evening-primrose (*Oenothera caespitosa* ssp. *marginata*) near tower 47/1.
-

Page 3-52, bullet item 9 has been modified as follows:

- Minimize disturbance to native shrub-dominated shrub-steppe communities~~species and~~ and cryptogamic crusts to the extent where possible during construction, ~~to prevent invasion by nonnative species.~~ Where not possible, consider compensatory habitat through either restoration or acquisition and preservation of shrub-steppe communities.
-

Page 3-53, paragraph 2 has been modified as follows:

Under the No Action Alternative, vegetation in the project area would not be disturbed by the proposed transmission line construction. The ~~68-83~~ acres of permanent vegetation impacts and the ~~466-211~~ to ~~481-226~~ acres of temporary vegetation impacts would not occur. The existing transmission line corridor would remain at its present width, with no additional area that would likely become dominated by invasive species. Continued impacts associated with operation and maintenance of the existing lines would remain.

Wildlife

Page 3-65, paragraph 4 has been modified as follows:

Construction activities would have both a short-term and long-term impact on habitat used by passerines. Vegetation clearing in uplands for roads, the McNary Substation expansion, and tower sites would result in the temporary (see Table 3-13) and permanent (see Table 3-12) loss of grazed shrub-steppe, shrub-steppe, and grassland, the primary habitat used by passerines. Of the ~~80-188~~ to ~~87-195~~ acres of those habitat types to be impacted during construction, ~~36-56~~ acres will be permanently converted to structures or roads.

Page 3-65, last paragraph has been modified as follows:

Impacts to reptiles as a result of project construction activities would occur within the construction area. Rock piles in uplands inhabited by reptiles may be impacted by clearing for roads and tower sites. The reptiles that would most likely be impacted by the project would be the Striped whipsnake, a state-monitor species, and the western rattlesnake. These two snakes inhabit grasslands, shrub-steppe, and dry rocky canyons (Shaw and Campbell 1974), habitats that are relatively common in the project vicinity. Potential impacts would include the temporary abandonment of suitable habitat as a result of disturbance, and/or the permanent loss of habitat due to the road and/or tower placement. Approximately ~~38-56~~ acres of potentially suitable habitat (~~9-14~~ acres of grassland and ~~29-42~~ acres of grazed shrub-steppe scabland and shrub-dominated shrub-steppe) would be permanently converted to roads or towers (Table 3-12).

Page 3-66, paragraph 5 has been modified as follows:

Between ~~31-63~~ and ~~39-71~~ acres of agricultural lands would be temporarily disturbed as a result of ~~road and tower construction and conductor tensioning sites~~. Eighteen acres of agricultural land would be permanently cleared for new access roads. Clearing of agricultural lands such as corn, alfalfa, and undisturbed patches between crop circles for roads and towers may result in some temporary impact to waterfowl and small mammals using the agricultural lands.

Page 3-67, paragraph 1 has been modified as follows:

Shrub-steppe is common in the project vicinity, but only a few areas were identified as high quality shrub-steppe. Because it is low growing, shrub-steppe vegetation types are compatible with power line clearance requirements. Construction of the project would result in the permanent loss of ~~23-39~~ acres of grazed shrub-steppe and ~~2-3~~ acres of shrub-dominated steppe habitat (see Table 3-12).

Page 3-67, paragraph 2 has been modified as follows:

Approximately ~~48-63~~ acres of vegetation would be ~~would be temporarily~~ permanently removed in the construction of new roads, primarily in agricultural, grassland, and grazed-steppe habitats (see Table 3-12). Construction of new roads would disturb wildlife associated with those habitats. Disturbance from road construction would result from use of heavy equipment and use of the roads following construction. Conversion of irrigated croplands to roads would not have a measurable impact to food resources for waterfowl because of the prevalence of the croplands in the project area.

2 Changes to the DEIS

Page 3-70, paragraph 5 has been modified as follows:

Wildlife may avoid the proposed transmission facilities because of human use such as maintenance, ~~or because of the presence of the structures~~ or lack of forage or cover. Deer would temporarily avoid areas with human activity, while bird responses to power lines may vary by species. For example, waterfowl may avoid habitat areas with transmission lines above them (Willard 1982). On the other hand, raptors are often attracted to transmission towers to use them as nesting sites (Bechard 1990), roosting sites, and places to perch to view the area for prey. Other species such as songbirds may be attracted to the shrub-steppe or grassland vegetation corridors that are undisturbed by agricultural uses or residential uses occurring in rights-of-ways.

Page 3-73, bullet item 10 has been modified as follows:

- ~~If deemed appropriate, install line markers in avian flight paths or migration corridors, such as near crop circles in the vicinity of the town of Paterson (north of the Umatilla National Wildlife Refuge) if appropriate and at the Columbia River crossings and the Rock Creek crossing.~~
-

Cultural Resources

Page 3-77, paragraph 3 has been modified as follows:

There are numerous archaeological sites in the project vicinity. The John Day Reservoir is an area of cultural importance to the peoples of the Umatilla Tribes. In 1999, the Cultural Resources Protection Plan (CRPP) conducted a baseline cultural resources data recording project of the John Day Reservoir. The CRPP gathered data of known archaeological sites and recorded many new sites and isolate finds (~~Dickson-Farrow 1999~~ 2001).

Page 3-78, new text has been added after paragraph 2 as follows:

The Warm Springs oral history report provides the following information.

The Culture and Heritage Department of the Warm Springs was consulted regarding cultural information they may have pertaining to the study area. The Culture and Heritage Committee provided a list of elders knowledgeable of the study area. Six elders were interviewed.

The Cultural Resource Department/Oral History Program was responsible for the administration of the project. Brigitte M. Whipple, Tribal Anthropologist/Ethnographer, provided project coordination including supervisory oversight, ethnographic investigations, oral history interviews, and

report preparation. Judy Kalama-King, Oral History Technician, conducted archival review of the study area and aided in the oral history interviews. Louis Scott and Fredrick Duran Bobb, Cultural Resources Technicians, provided technical equipment support and aided in the oral history transcription. Sally Bird, Program Manager, provided oversight and technical review.

In the Sahaptin language, the Columbia River is known as Nchi'Wana (big water). The entire Columbia River was utilized for fishing, hunting, plant gathering, travelways, and temporary and permanent camping/villages. It is still used today by the people of Warm Springs who continue to venture to the area to practice their way of life. Opposite the mouth of John Day River on the north bank of the Columbia River, three 19th century Native American villages were located. The project is partially within the Warm Springs ceded lands. The lands were ceded to the United States Government with the signing of the 1855 Treaty with the Tribes of Middle Oregon.

Three tribes that make up the Confederated Tribes of the Warm Springs utilized the Columbia River area historically and continue to do so today. These tribes are the Warm Springs, Wasco, and Northern Paiute. The tribes harvested salmon, medicine, and fibers for basketry and hunted deer and elk in the project area. The Confederated Tribes of the Warm Springs Reservation Oregon (CTWSRO) celebrates the coming of the traditional foods in the spring. Ceremonial fishermen harvest the salmon from the Columbia River for the Salmon Feast. The first harvest is shared with tribal membership. Significant resources in the project area include roots, vegetables, herbs, and plant material for basketry.

The project corridor passes through and is adjacent to terrain that is culturally significant to several Native American tribes. Archaeological sites discovered during the last century document locations that are held as traditional use areas of the CTWSRO—The Walla Walla Bands – Taih or Upper DesChutes, Wy-am or Lower DesChutes, Tenino, Dock-Spurs or John Day's River and Wasco Bands – The Dalles, Ki-gal-twal-la and Dog River.

Thirty-two ethnographic place names were documented during this study. These places denote fishing sites, villages (permanent and temporary), trading places, items and practices, and travel routes.

Plateau people utilized approximately 135 species of plants as sources of foods, flavorings, or beverages. Over 30 species of "root vegetables" including true roots, corms, bulbs, tubers, and rhizomes were part of the traditional diet. There is a wide regional variation in relative importance of different species.

The Cultural Resource Department (CRD) considers the Columbia River, the 79-mile project area, to be a "cultural site" as per Tribal Ordinance 68, Chapter 490. One of the CRD's main concerns is accessibility for the tribal membership to harvest fisheries resources within this portion of their ceded lands. Therefore, the

2 Changes to the DEIS

CRD wants to be sure that the construction of the proposed 79-mile long 500-kV transmission line will not adversely affect the cultural plant and fisheries harvest communities that are traditionally utilized by the CTWSRO tribal membership in the area. The CRD would like to ensure the cultural and natural resources are protected and the traditional use of the area is maintained in accordance with reserved treaty rights. The second CRD concern is the possibility of subsurface remains being disturbed. The CRD recommends that a tribal monitor be present during all ground-disturbing activities.

Page 3-78, new text has been added after paragraph 4 as follows:

After breaking camp on October 22, below the present location of the John Day Dam, the Corps of Discovery worked its way down the Columbia River eventually reaching what would come to be known as Station Camp in mid-November 1805. The decision to winter on the Oregon side of the Columbia River was a result of an historic vote or consultation taken at Station Camp on November 24, 1805.

The Corps of Discovery disembarked from Fort Clatsop on March 23, 1806 retracing their voyage up the Columbia River from the previous fall. Campsites during their return trip through the Mid-Columbia Study Unit included stops near present day Towal on April 22, west of Rock Creek on April 23, west of Roosevelt on April 24, near Alder Creek on April 25, and near the Plymouth town site on April 26, 1806.

Although the locations used as campsites during the expedition are more than likely destroyed or under the water behind the John Day Dam, the legacy of the Lewis and Clark expedition in the Mid-Columbia Study Unit is an important one. Friendly relations with indigenous peoples along the Columbia River facilitated their goal of reaching the Pacific Ocean.

For the next 50 years after the Corps of Discovery expedition, the only Euro-Americans in the Mid-Columbia Study Unit were adventurers, fur trappers, and traders. Euro-American settlement did not commence until the late 1850s. However, once begun, it grew rapidly. Many towns in central Klickitat County were platted during this period, prompting the territorial legislature to establish the areas as a county in 1859.

Page 3-80, paragraph 4 has been modified as follows:

Chapman Creek rises near the Oak Grove district in east central Klickitat County and flows southeasterly 10 miles to the Columbia River at Sundale. It was named for ~~Eldon Chapman, postmaster of Six Prong (a historic community within Klickitat County) in the early 1900s~~ Joe Chapman who established a wood yard for steamers at the mouth of the creek in 1859.

Page 3-81, Field Survey Results, paragraph 4 has been modified as follows:

Of the 10 previously recorded sites situated within or adjacent to the corridor, eight were re-identified in the field. The remaining two sites, 45BN231 and 45BN232, were not relocated. A total of 13 new cultural resource sites were identified during the field surveys. An additional 15 isolate finds were also documented. One historic structure, the Fuhrman Ranch, was identified during fieldwork.

Page 3-84, paragraph 3 has been modified as follows:

Transmission towers and access roads would be sited so as to avoid the known cultural resource sites along the corridor. Of the ~~14~~¹³ cultural resource sites found, six should require no further action aside from avoidance. The remaining seven sites need further action as described in the Cultural Resource Technical Report (Jones & Stokes 2002). ~~12 require avoidance and two sites require avoidance.~~ Cultural resource monitors should be present when construction excavation and/or ground disturbing activities take place in and around archaeological sites. A monitor's presence would ensure proper handling of sensitive cultural resources if unearthed. Of the ten previously documented cultural resource sites along the corridor, nine require avoidance and one site requires avoidance plus a cultural resource monitor during construction excavation.

Page 3-85, bullet 4 has been replaced as follows:

- ~~Limit the number of contractors to cultural resource site sensitive information on a need to know basis.~~
 - On maps and in specifications provided to construction contractors, indicate cultural sites as generic avoidance areas to maintain site confidentiality.
-

Page 3-85, bullet 5 has been replaced as follows:

- ~~Continue consultation with the Umatilla Tribes and the Yakama Nation to determine appropriate tribal monitoring for ground disturbing activities.~~
 - Have a monitor on site for construction activities in and around sites eligible for listing in the National Register of Historic Places.
 - Determine sites to be monitored based on Bonneville practices for avoiding adverse effects to historic properties, tribal concerns and the Oregon and Washington SHPO concurrence.
-

2 Changes to the DEIS

Page 3-85, bullet item 6 has been modified as follows:

- Continue consultation with the Umatilla Tribes, Warm Springs Tribes, and the Yakama Nation to set up consultation protocols on site mitigation and management.
-

Page 3-85, bullet 7 has been modified as follows:

- Continue consultation with the Umatilla Tribes, the Warm Springs Tribes, and the Yakama Nation to ensure that the cultural and natural resources are protected.
-

Page 3-85, after bullet 7, add a new bullet as follows:

- Conduct offsets and buffers around previously recorded and newly identified archaeological sites based on Bonneville practices for avoiding adverse effects to historic properties, tribal concerns and the Oregon and Washington SHPO concurrence.
-

Page 3-85, paragraph 3 has been modified as follows:

~~There are no significant cultural resources in the areas of the short-line routing alternatives; impacts are not expected for any of the alternatives.~~

At the Hanford-John Day Junction Alternatives, Alternatives B and C (south-side alternatives), would impact the Fuhrman Ranch. The Fuhrman Ranch is eligible for listing in the National Register. These alternatives would significantly impact both the context and integrity of the Fuhrman Ranch, limiting its potential for listing in the National Register.

Site 12.04-WA-02 is south of the Corridor Mile 35 tower and could be impacted by the Corridor Mile 35 Alternatives, Alternative B – (move entire corridor off tribal property). Further discussion with Bonneville’s construction engineers and access road engineers will take place to identify appropriate mitigation measures.

There are no significant cultural resources in the areas of the other short-line routing alternatives; impacts are not expected for any of those ~~alternatives~~.

Public Health and Safety

Page 3-119, paragraph 2 new text has been added following the paragraph:

Contaminated media (soil, surface water or groundwater), if unexpectedly encountered during construction of the project, may present potential risk/liability

Affected Environment, Environmental Consequences, and Mitigation/ Consultation, Review, and Permit Requirements

to Bonneville staff or construction contractors. Potential risk and liability includes worker health and safety, management of contaminated materials and/or exacerbation of contaminated media.

Page 3-126, new bullet has been added after last bullet on the page as follows:

- Should contaminated media be unexpectedly encountered during construction, work should stop and an environmental specialist called to characterize the nature and extent of contamination and determine appropriate State-approved measures to prevent spread and protect health and safety.
-

Consultation, Review, and Permit Requirements (Chapter 4)

Page 4-2, delete paragraph 3 and add new text as follows:

~~Jones & Stokes biologists conducted field surveys of the project corridor during summer 2001.~~

A Biological Assessment (Final Biological Assessment, BPA McNary-John Day Transmission Line Project, May 2002) was submitted to the U.S. Fish and Wildlife Service and National Marine Fisheries Service in May 2002. The Biological Assessment concluded that the project activities “may affect, but are not likely to adversely affect” listed species in the project area (bald eagle, pygmy rabbit, bull trout, Ute ladies’ tresses, northern wormwood, coastal cutthroat trout [Columbia River/southwest Washington DPS], steelhead trout [Snake River Basin ESU, and Upper Columbia River ESU], sockeye salmon [Snake River ESU], chinook salmon [Snake River Fall ESU, Snake River Spring/Summer ESU, and Upper Columbia River Spring ESU], and any designated critical habitat for these species.

For tower placement adjacent to the Columbia River, an amendment was submitted to the U.S. Fish and Wildlife Service in August 2002, with a conclusion that activities “may affect, but are not likely to adversely affect” bull trout. The tower work requires a Corps permit and is an activity allowed under the National Marine Fisheries Service Programmatic Biological Opinion and Magnuson-Stevens Act Essential Fish Habitat Consultation for Standard Local Operating Procedures for Endangered Species (SLOPES) for Certain Activities Requiring Department of Army Permits in Oregon and the North Shore of the Columbia River.

Appropriate mitigation measures consistent with consultation are listed in Chapter 3 in the sections Streams, Rivers and Fish; Vegetation; and Wildlife.

Page 4-9, paragraph 2 has been modified as follows:

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) regulates all work done in or structures placed below the ordinary high water mark of navigable waters of the United States. Construction of the footings for the Columbia River crossing towers at McNary Substation may be below the ordinary high water mark of the river. The proposed project also includes conductors that would span the navigable waters of the Columbia River, a “water of the United States” as defined in the Rivers and Harbors Act. Overhead utility lines constructed over Section 10 waters require a Section 10 permit. Coordination with the Corps will occur for both of these potential permits.

Page 4-9, paragraph 4 has been modified as follows:

Section 401 of the Clean Water Act, the State Water Quality Certification program, requires that states certify compliance of federal permits and licenses with state water quality requirements. A federal permit to conduct an activity that results in discharges into waters of the United States, including wetlands, is issued only after the affected state certifies that existing water quality standards would not be violated. ~~Bonneville is not expecting any discharges into waters of the U.S.~~

Page 4-9, paragraph 6 has been modified as follows:

Section 404 requires authorization from the Corps in accordance with the provisions of Section 404 of the Clean Water Act when there is a discharge of dredged or fill material into waters of the U.S., including wetlands. Twenty-four wetlands or waters of the U.S. would be crossed by access roads, and the river-crossing-tower adjacent to the Columbia River near McNary Substation would require some wetland fill. ~~Bonneville does not expect any waters (including wetlands) to be impacted by access road or tower construction. Water bodies/wetland field surveys would ensure full compliance with the Clean Water Act.~~ If there would be For the potential impacts, authorization is being ~~would be~~ sought from the Corps and the appropriate state and local government agencies in Washington and Oregon. Please see the Wetlands and Groundwater section of Chapter 3 for further discussion of potential wetland impacts for the project.

References (Chapter 5)

The following references have been added to the EIS:

Jones & Stokes. 2002. Draft-Archaeological Survey of the BPA McNary to John Day Transmission Line Project. Prepared for Bonneville Power Administration in consultation with The Confederated Tribes of the Umatilla Indian Reservation, The Confederated Tribes of the Warm Springs Reservation Oregon, and The Yakama Nation.

BPA. 2002. 2000 Pacific Northwest Loads and Resources Study. (common name “White Book”)., Portland, OR.

Jones & Stokes. 2002. BPA McNary-John Day Transmission Line Project. Final Biological Assessment. May 2. (J&S 0P007.01.) Bellevue, WA. Prepared for Bonneville Power Administration, Portland, OR.

Energy and Environmental Economics, Inc. et. al. 2001. Expansion of Bonneville Transmission Planning Capabilities. Prepared for Bonneville Power Administration, Portland, OR.

Bonneville Power Administration. 2001. System Impact Studies: Wallula Generation Project System Impact Studies, Portland, OR.

Bonneville Power Administration. 2001. System Facility Studies: Wallula Systems Facility Study Report (Draft), Portland, OR.

NMFS (National Marine Fisheries Service). 2002. Programmatic Biological Opinion: Standard Local Operating Procedures for Endangered Species (SLOPES) for Certain Activities Requiring Department of the Army Permits in Oregon and the North Shore of the Columbia River. June 14, 2002. OHB2001-0016-PEC. Northwest Region, Seattle, WA.

Appendices

The title of Appendix C has been modified as follows:

Appendix C
Guide to All Common and Scientific Names
of Plants Referred to in the DEIS in Study Corridor

Chapter 3

Changes to the Draft EIS Tables

This chapter identifies the specific changes to the draft EIS tables. Eleven tables have been updated. Please note that Table S-2 and Table 2-4 from the draft EIS contained the same information; the table has been reprinted once in this final EIS.

Table S-2 and Table 2-4: Summary of Impacts of Short-Line Alternatives, McNary-John Day Transmission Project

McNary Substation Alternatives			Hanford-John Day Junction Alternatives			Corridor Mile 32 Alternatives		Corridor Mile 35 Alternatives	
Alternative A	Alternative B	Alternative C	Alternative A	Alternative B	Alternative C	Alternative A	Alternative B	Alternative A	Alternative B
Wildlife viewing temporarily obstructed; no impact to soils; some sedimentation to Columbia River and pond habitat; about 0.1 acre of trees in wetland; about 2 acres grassland removed for building relocation; about 2 acres marginal grassland habitat removed; no cultural resource impacts with mitigation; recreationists and travelers would have views of construction; no impact to socioeconomics; negligible transportation impacts during construction; minimal air quality impacts during construction/operation; construction noise; no specific health and safety impacts	Wildlife viewing temporarily obstructed; no impact to soils; some sedimentation to Columbia River and pond habitat, though less ground disturbance than Alternative A, but closer to river; about 0.2 acre of willows in wetland removed; cottonwood trees and vegetation removed; bird nesting and ground dwelling animal habitat removed, increased risk of avian collisions; no cultural resource impacts with mitigation; recreationists and travelers would views of construction; no impact to socioeconomics; negligible transportation impacts during construction; minimal air quality impacts during construction/operation; construction noise; no specific health and safety impacts	No recreation impacts anticipated; no impact to soils; slight increased (than Alternative A or Alternative B) sedimentation to Columbia River and pond habitat though ground disturbance and permanent surface of bus work; minor sediments to wetland; about 0.7 acre of grassland removed for bus work; negligible wildlife impacts; no cultural resource impacts with mitigation; recreationists, travelers, and residence would have views of bus work; no impact to socioeconomics; negligible transportation impacts during construction; minimal air quality impacts during construction/operation; construction noise; no specific health and safety impacts	About 1.5 <u>2.4</u> acres of grazing land permanently disturbed, no impact to soils; no impact to fish/water; invasive <i>Ailanthus</i> sp. trees in wetland may be removed; sedimentation to small wetland; about 1.6 <u>2.4</u> acres of vegetation permanently impacted; negligible wildlife impacts; no cultural resource impacts with mitigation; views of line from highway and residence (less than Alternative B or C); no impact to socioeconomics; negligible transportation impacts during construction; minimal air quality impacts during construction/operation; construction noise; no specific health and safety impacts	About 1.5 <u>3.6</u> acres of grazing land permanently disturbed, residence may need to be removed; no impact to soils; no impact to fish/water; trees in wetland may be removed, sedimentation to small wetland; about 1.3 <u>6</u> acres of vegetation permanently impacted, 10 <u>12</u> invasive <i>Ailanthus</i> sp. trees removed; loss of trees reduce bird nesting habitat; no cultural resource impacts with mitigation ; <u>Fuhrman Ranch is eligible for listing in the National Register and would be impacted with the construction of Alternative B</u> ; views of line from highway and residence (more than Alternative A); no impact to socioeconomics; negligible transportation impacts during construction; minimal air quality impacts during construction/operation; construction noise and corona noise; no specific health and safety impacts	About 1.5 <u>6.8</u> acres of grazing land permanently disturbed, residence may need to be removed; no impact to soils; no impact to fish/water; invasive <i>Ailanthus</i> sp. trees in wetland may be removed; sedimentation and potential fill in small wetland; about 1.6 <u>6.8</u> acres of vegetation permanently impacted, 10 <u>12</u> invasive ailanthus sp. trees removed; loss of trees reduce bird nesting habitat; no cultural resource impacts with mitigation ; <u>Fuhrman Ranch is eligible for listing in the National Register and would be impacted with the construction of Alternative C</u> ; views of line from highway and residence (more than Alternative A); no impact to socioeconomics; negligible transportation impacts during construction; minimal air quality impacts during construction/operation; construction noise and corona noise; no specific health and safety impacts	About 0.8 acre of cropland removed from production; no impact to soils; no impact to fish/water; no wetland impacts; about 4 <u>0.8</u> acre grazed shrub-steppe impacted; minor impacts to grazed shrub-steppe designated Priority Habitat by WDFW agricultural land removed; no cultural resource impacts with mitigation; travelers on highway and agricultural workers would view line (less than Alternative B); agreement between tribes and Bonneville needed to cross tribal; negligible transportation impacts during construction; minimal air quality impacts during construction/operation; construction noise; no specific health and safety impacts	About 0.6 <u>1.0</u> acre of cropland permanently impacted; removed from production permanently impacted; no impact to soils; no impact to fish/water; no wetland impacts; about 5.5 <u>1.0</u> acres grazed shrub-steppe impacted; about 1 acre of marginal agricultural habitat removed; no cultural resource impacts with mitigation; travelers on highway and agricultural workers would view line (more than Alternative A); no impact to socioeconomics; negligible transportation impacts during construction; minimal air quality impacts during construction/operation; construction noise; no specific health and safety impacts	About 0.8 acre of cropland grazing land permanently impacted; removed from production permanently impacted; no impact to soils; slight sedimentation to Columbia River (less than Alternative B); no wetland impacts; no vegetation impacts <u>0.8 acre of grazed shrub-steppe removed</u> ; minor impact to heavily grazed shrub-steppe habitat; no cultural resource impacts with mitigation; travelers on highway and agricultural workers would view line (less than Alternative B); agreement between tribes and Bonneville needed to cross tribal; negligible transportation impacts during construction; minimal air quality impacts during construction/operation; construction noise; no specific health and safety impacts	About 0.6 <u>1.0</u> acre of cropland grazing land permanently impacted permanently impacted; no impact to soils; slight sedimentation to Columbia River (more than Alternative A); no wetland impacts; about 5.5 <u>1.0</u> acres grazed shrub-steppe permanently impacted; minor impact to heavily grazed shrub-steppe habitat (more than Alternative A); no cultural resource impacts with mitigation ; <u>a potentially eligible archaeological site (12.04-WA-02) would be impacted with construction of Alternative B</u> ; travelers on highway and agricultural workers would view line (more than Alternative A); no impact to socioeconomics; negligible transportation impacts during construction; minimal air quality impacts during construction/operation; construction noise; no specific health and safety impacts

Table 2-3: Summary of Impacts and Mitigation Measures for the Proposed Action and No Action Alternative

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Land Use and Recreation		
<ul style="list-style-type: none"> Temporary disturbance to upland bird hunting in project vicinity Approximately 47-63 acres impacted by new roads, 93-186 acres impacted by tower construction, and 25 acres of poplar trees cut and converted to agriculture compatible with the transmission line 	<ul style="list-style-type: none"> Locate towers and roads so as not to disrupt irrigation circles, where possible Locate structures and roads outside of agricultural fields, orchards, and vineyards, where possible Coordinate with landowners for farm operations, including plowing, crop dusting, and harvesting Redesign irrigation equipment and compensate landowner for additional reasonable costs where new right-of-way needs to be acquired Compensate farmers for crop damage and restore compacted soils Control weeds around the base of the towers Keep gates and fences closed and in good repair to contain livestock <u>Repair damages to access roads caused by or arising out of Bonneville use, leaving roads in good or better condition than prior to construction.</u> 	<ul style="list-style-type: none"> No impact
Geology, Soils, and Seismicity		
<ul style="list-style-type: none"> Removal of vegetation and disturbance to underlying soils in an area of up to 222-183 acres Operation and maintenance activities could increase erosion potential along the project corridor <u>Temporary removal of vegetation and disturbance to underlying soils in an area up to 226 acres</u> 	<ul style="list-style-type: none"> Minimize vegetation removal Avoid construction on steep slopes where possible Properly engineer cut-and-fill slopes Install appropriate roadway drainage to control and disperse runoff <u>Ensure graveled surfaces on access roads in areas of sustained wind. In areas of potential wind erosion, apply gravel to access road surfaces.</u> <u>Develop additional mitigation measures (using a certified engineer) between corridor miles 39 and 41 due to the presence of an active landslide in the vicinity of tower 40/3</u> <u>In area of landslide (corridor miles 39 and 41) do not construct any new roads within 100 feet of slide area; reshape existing access road with out-slope to provide drainage; and site tower east of area, if possible.</u> 	<ul style="list-style-type: none"> No impact

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Geology, Soils, and Seismicity, continued		
	<ul style="list-style-type: none"> ▪ Apply erosion control measures such as silt fence, straw mulch, straw wattles, straw bale check dams, other soil stabilizers, and reseeding disturbed areas as required (prepare a Stormwater Pollution Prevention Plan). ▪ Regularly inspect and maintain project facilities, including the access roads, to ensure erosion levels remain the same or less than current conditions ▪ <u>Consider helicopter construction in areas of steep slopes to lessen the size of access roads and temporary tower site impacts (laydown areas of materials).</u> 	
Streams, Rivers, and Fish		
<ul style="list-style-type: none"> ▪ Potential transport of sediment to fish-bearing waters ▪ Potential accidental spills of construction materials into waterways ▪ Potential dry wash crossing and culvert installation ▪ Potential blasting near fish-bearing waters ▪ Implementation of vegetation management techniques 	<ul style="list-style-type: none"> ▪ Place towers outside of stream riparian areas and utilize natural landscape features to span the conductor over existing shrub and tree riparian zones and avoid cutting. ▪ Place new access roads outside of stream riparian areas, where possible. ▪ Construct fords instead of culverts at access road crossings of dry washes or seasonal streams if possible. If culverts are required, design and install to accommodate flows associated with a 100-year flood event. ▪ <u>Where access roads cross a dry wash, the road gradient should be 0% to avoid diverting surface waters from the channel.</u> ▪ Preserve existing vegetation where practical, especially next to intermittent and perennial streams. ▪ Avoid construction within the 200-foot designated stream buffers in Klickitat and Benton Counties, Washington. ▪ Maximize the use of existing roads, minimizing the need for new road construction. ▪ Avoid tower or access road construction on potentially unstable slopes where feasible. ▪ Install appropriate water and sediment control devices at all dry wash crossings, if necessary. 	<ul style="list-style-type: none"> ▪ No impact

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Streams, Rivers, and Fish, continued		
	<ul style="list-style-type: none"> ▪ Use erosion control methods during construction (see mitigation measures for Geology, Soils, and Seismicity, Chapter 3), to minimize transport of sediments to streams via runoff. ▪ Reseed disturbed areas following construction where appropriate. ▪ Construct any required culverts using Washington Department of Fish and Wildlife culvert installation guidelines. Methods may include avoiding installation during periods of flow, armoring streambanks near the culvert entrance and exit, installing culverts on straight sections of stream to ensure unimpeded flow, and following the contour of the stream channel. ▪ Repair existing road failures and drainage devices between corridor mile 33 to 47 to reduce potential impacts to dry washes. ▪ Avoid blasting during periods when salmonid eggs or alevins are present in gravels. ▪ Avoid blasting within 200 feet of fish bearing or potentially fish bearing streams. ▪ <u>Avoid blasting within 200 feet of fish-bearing or potentially fish-bearing streams during periods when salmonid eggs or alevins are present in gravels.</u> ▪ <u>Conduct in-water work at the Columbia River during Corps of Engineers designed in-water work windows.</u> ▪ Develop and implement a Spill Prevention and Contingency Plan to minimize the potential for spills of hazardous material including provisions for storage of hazardous materials and refueling of construction equipment outside of riparian zones, spill containment and recovery plan, and notification and activation protocols. ▪ Keep vehicles and equipment in good working order to prevent oil and fuel leaks. ▪ Return staging areas to pre-construction condition. 	

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Streams, Rivers, and Fish, continued		
	<ul style="list-style-type: none"> ▪ <u>Site staging areas away from stream beds.</u> ▪ <u>For Columbia River water work:</u> ▪ <u>Site staging 150 feet or more from water body.</u> ▪ <u>If working within 150 feet of water body, check vehicles daily for leaks and diaper stationary power equipment.</u> ▪ <u>Construct during recommended Corps in-water work windows for the Columbia River (December 1 thru March 31).</u> ▪ <u>Isolate in-water work area and capture and release fish from the work area under the supervision of a competent fisheries biologist experienced to capture ESA-list fish.</u> ▪ <u>Use appropriate fish screens on all intakes and pumps.</u> 	
Vegetation		
<ul style="list-style-type: none"> ▪ Proposed project would temporarily disturb 121-211 to 134-226 acres depending on the number and location of conductor tensioning sites ▪ Temporary impact to 24-42 to 27-44 acres of native plants and 4 7 acres of cryptogamic crusts; permanent impact to 12-19 acres of native plants and 2-3 acres of cryptogamic crusts ▪ Establishment of noxious weeds ▪ Vegetation loss due to fire 	<ul style="list-style-type: none"> ▪ Locate the proposed transmission line adjacent to the existing corridor to minimize additional clearing. ▪ Utilize the existing access road system to the extent possible to reduce the need for new access roads. ▪ Keep vegetation clearing to the minimum required to maintain safety and operational standards. ▪ Avoid construction activities or permanent tower or access road siting in native shrub-dominated shrub-steppe communities, if possible. ▪ Reseed areas temporarily disturbed in higher quality shrub-steppe with native grasses and forbs (if recommended by local county) and salvage topsoil and bunchgrass plant material. Reseeding should occur at the appropriate planting season. Reseed all disturbed areas with seeds recommended by the local county. ▪ Equip all vehicles with basic fire-fighting equipment including extinguishers, shovels, and other equipment deemed appropriate for fighting grass fires. ▪ Avoid tree removal to the extent possible. 	<ul style="list-style-type: none"> ▪ No impact

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Vegetation, continued		
	<ul style="list-style-type: none"> ▪ Limit construction equipment to tower sites, access roads, and conductor tensioning sites. ▪ <u>If Utes ladies' tresses is found during August 2002 surveys, avoid construction or construction activities in that location.</u> ▪ <u>Avoid construction or construction activities at location of desert evening-primrose (<i>Oenothera caespitosa ssp. marginata</i>) near tower 47/1.</u> ▪ Minimize disturbance to <u>native shrub-dominated shrub-steppe communities species and cryptogamic crusts to the extent where possible during construction, to prevent invasion by nonnative species. Where not possible, consider compensatory habitat through either restoration or acquisition and preservation of shrub-steppe communities.</u> ▪ Conduct a pre-construction and a post-construction noxious weed survey to determine if construction contributed to the spread of noxious weed populations. ▪ Enter into active noxious weed control programs with land owners/mangers or county weed control districts where activities may have caused or aggravated an infestation. ▪ Wash vehicles that have been in weed-infested areas (removing as much weed seed as possible) before entering areas of no known infestations. ▪ Use certified weed-free mulching. 	
Wildlife		
<ul style="list-style-type: none"> ▪ Construction noise and activities would cause some wildlife to avoid areas of active construction ▪ Temporary impact to 24-89 to <u>27-95</u> acres of shrub-steppe habitat and permanent impact to 12-42 acres of shrub-steppe 	<ul style="list-style-type: none"> ▪ Prior to construction, conduct raptor nest surveys (for existing and new nests) of cliffs located within 0.25 mile of the right-of-way (corridor miles 3, 54, 56, 57, 72, 73). See potential mitigation measures below for specific species. ▪ Between January 1 and July 30, avoid using helicopters within 0.25 mile of cliffs identified as Priority Habitat by the Washington Department of Fish and Wildlife (use ground-based equipment near cliffs). ▪ If bald eagle nests are found on the cliffs, restrict construction during nesting season (January 1 through July 15). 	<ul style="list-style-type: none"> ▪ No impact

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Wildlife, continued		
<ul style="list-style-type: none"> Potential for bird collisions with new transmission line, particularly where line would cross open water or wetlands 	<ul style="list-style-type: none"> Avoid blasting cliffs identified as Priority Habitat by Washington Department of Fish and Wildlife and consult with the Washington Department of Fish and Wildlife or Oregon Department of Wildlife regarding measures to minimize nest disturbance on a site-by-site basis if nests are found. Mitigation for burrowing owls. If possible, avoid disturbance within 160 feet of occupied burrows during the non-breeding season of September 1 through January 31 or within 250 feet during the breeding season of February 1 through August 31. Mitigation for peregrine falcon. If possible, avoid disturbance within 0.25 mile of any active nests during the breeding season (March through June). Mitigation for prairie falcon. If possible, avoid construction activities between February 15 and July 15 within 0.25 mile of active nests. Mitigation for red-tail hawk. If possible, avoid construction activities within 320 feet between February 15 and July 15. Mitigation for other raptors. Consult with Oregon Department of Fish and Wildlife and Washington Department of Fish and Wildlife. If deemed appropriate, install line markers in avian flight paths or migration corridors, such as near crop circles in the vicinity of the town of Paterson (north of the Umatilla National Wildlife Refuge) if appropriate and at the Columbia River crossings and the Rock Creek crossing. For the McNary Substation Alternatives, avoid placing towers and lines across wetlands to minimize risk of bird collision. Minimize the amount of shrub-steppe plant communities removed by clearing only the amount of vegetation necessary to prepare tower footings or build roads. Minimize road construction in shrub-steppe areas with burrows. Burrows were found in the field near corridor miles 19, 21, 63, and 76. Span riparian corridors to minimize removal of shrubs or trees within riparian areas. 	

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Wetlands and Groundwater		
<ul style="list-style-type: none"> ▪ Accidental spills of hazardous or toxic materials used or stored on the project site (fuels, lubricants, solvents) ▪ Potential removal of wetland buffer vegetation <u>and less than 1.0 acre of wetland fill at corridor miles 2, 13, 34, 36, between 42 and 47, 48, 49, 50, 66, and between corridor mile 71 and 74</u>72, with risk of increasing silt and sediment to wetlands 	<ul style="list-style-type: none"> ▪ Locate structures, new roads, and staging areas so as to avoid waters of the U.S., including wetlands. <u>Where avoidance is not possible, provide compensation for wetland impacts in accordance with Corps Section 404 permitting requirements.</u> ▪ Avoid construction within designated Klickitat and Benton Counties, Washington wetland and stream buffers to protect potential groundwater recharge areas (Klickitat County Critical Areas Ordinance; Benton County Code Title 15). ▪ Avoid mechanized land clearing within wetlands and riparian areas to avoid soil compaction from heavy machinery, destruction of live plants, and potential alteration of surface water patterns to reduce groundwater turbidity risk. ▪ Anticipate and avoid, as required, contaminated soil and underground tanks during construction activities near pipelines and agricultural and other historic projects. Anticipate and avoid orphaned wells, as required, particularly near the communities of Plymouth, Paterson, Roosevelt, Sundale, and Towal. ▪ Use erosion control measures (see mitigations listed in the Soils, Geology, and Seismicity section) when conducting any earth disturbance within 100 feet of wetlands, or within the resource buffer as established by Benton and Klickitat Counties. ▪ Avoiding refueling and/or mixing hazardous materials where accidental spills could enter surface or groundwater. ▪ Using existing road systems, where possible, to access tower locations and for the clearing of the transmission line alignment. ▪ Avoid construction on steep, unstable slopes if possible. ▪ Place tower footings on upland basalt outcroppings and limit access road construction in wetlands complex and buffers between corridor miles 70 and 74, if possible. ▪ Place tower footings and access roads within uplands within the wetland complex between corridor miles 48 and 50. 	<ul style="list-style-type: none"> ▪ No impact

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Wetlands and Groundwater, continued		
	<ul style="list-style-type: none"> Avoid placing towers and roads that would necessitate the cutting of the palustrine-forested wetland near the McNary Substation (Alternative B). 	
Cultural Resources		
<ul style="list-style-type: none"> Disturbance of undiscovered hunter-fisher-gatherer resources or unrecorded cultural resources 	<ul style="list-style-type: none"> Locate structures, new roads, and staging areas so as to avoid known cultural resource sites. Utilize existing access road system to the extent possible to reduce the need for new access roads. Limit construction equipment to tower sites, access roads and conductor tensioning sites. Limit the number of contractors to cultural resource site sensitive information on a need-to-know basis. <u>On maps and in specifications provided to construction contractors, indicate cultural sites as generic avoidance areas to maintain site confidentiality.</u> Continue consultation with the Umatilla Tribes and the Yakama Nation to determine appropriate tribal monitoring for ground disturbing activities. <u>Have a monitor on site for construction activities in and around sites eligible for listing in the National Register of Historic Places.</u> <u>Determine sites to be monitored based on Bonneville practices for avoiding adverse effects to historic properties, tribal concerns and the Oregon and Washington SHPO concurrence.</u> Continue consultation with the Umatilla Tribes, <u>Warm Spring Tribes</u>, and the Yakama Nation to set up consultation protocols on site mitigation and management. Continue consultation with the Umatilla Tribes, <u>the Warm Springs Tribes</u>, and the Yakama Nation to ensure that the cultural and natural resources are protected. 	<ul style="list-style-type: none"> No impact

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Cultural Resources, continued		
	<ul style="list-style-type: none"> ▪ <u>Conduct offsets and buffers around previously recorded and newly identified archaeological sites based on BPA practices for avoiding adverse effects to historic properties, tribal concerns and the Oregon and Washington SHPO concurrence.</u> ▪ If previously unknown artifacts are identified during construction, contact representatives of the affected tribes. ▪ Stop all construction activities in the immediate area should any previously unknown artifacts be identified during construction until the resource can be evaluated by an archaeologist meeting the Secretary of the Interior's Qualifications Standards for Archaeology (48 FR 44738-39). Prehistoric site indicators include, but are not limited to, chipped stone, obsidian tools and tool manufacture debitage (waste flakes), grinding implements such as mortars and pestles, and darkened soil that contains organic remains of food production such as animal bone and shellfish remains. Historic site indicators include, but are not limited to, ceramic, glass, wood, bone, and metal remains. ▪ For previously unknown artifacts, identify type and significance of discovered resource for determining if avoidance is necessary, depending on the type and significance of any discovered resource, procedures may include testing the site with shovel test probes to determine site boundaries and any possible subsurface components. If results of the shovel test probes determine the presence of an extensive subsurface component, move structure location to a suitable location that avoids the site. Alternatively, develop and implement a full data recovery program for the site in consultation with the affected tribes and the Oregon and Washington State historic preservation officers. ▪ Stop construction in the area immediately should human remains and/or burials be encountered. Secure the area, placing it off limits for anyone but authorized personnel. 	

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Visual Resources		
<ul style="list-style-type: none"> ▪ Temporary alterations to viewscape from construction activities ▪ Change in viewscape; impacts would be greatest for residential viewers 	<ul style="list-style-type: none"> ▪ Site all construction staging and storage areas away from locations that would be clearly visible from SR 14 as much as practical. ▪ Provide a clean-looking facility following construction by cleaning-up after construction activities. ▪ Keep the areas around the towers clean and free of debris. ▪ Provide regular maintenance of the access roads and fences within and leading to the corridor. 	<ul style="list-style-type: none"> ▪ No impact
Socioeconomics, Public Services, and Utilities		
<ul style="list-style-type: none"> ▪ Potential benefit to local and regional economies through employment opportunities and purchase of goods and services ▪ Increased demand on local emergency response resources such as fire, police, and medical personnel and facilities ▪ Minor reduction on local taxing from any reduction in property values 	<ul style="list-style-type: none"> ▪ None required 	<ul style="list-style-type: none"> ▪ No impact
Transportation		
<ul style="list-style-type: none"> ▪ Short interruptions of SR 14 traffic from construction activities ▪ Possible damage to farm roads during construction ▪ Potential for increased unauthorized access following project construction 	<ul style="list-style-type: none"> ▪ Coordinate routing and scheduling of construction traffic with state and county road staff and Burlington Northern Santa Fe Railway. ▪ Employ traffic control flaggers and post signs warning of construction activity and merging traffic, when necessary for short interruptions of traffic. ▪ Repair any damage to local farm roads caused by the project. ▪ Install gates on access roads when requested by property owners to reduce unauthorized use. 	<ul style="list-style-type: none"> ▪ No impact

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Air Quality		
<ul style="list-style-type: none"> Combustion pollutants from equipment exhaust and fugitive dust particles from disturbed soils becoming airborne 	<ul style="list-style-type: none"> Water exposed soil surfaces if necessary to control blowing dust. Cover construction materials if they are a source of blowing dust. Limit vehicle speeds along dirt roads to 25 miles per hour. Shut down idling construction equipment, if feasible. 	<ul style="list-style-type: none"> No impact
Noise		
<ul style="list-style-type: none"> Residents in the vicinity of the project site could experience construction noise (associated with grading and earthmoving activities, hauling of materials, and building of towers) above Washington and Oregon noise standards Potential radio and television interference 	<ul style="list-style-type: none"> All equipment to have sound-control devices no less effective than those provided on the original equipment. No equipment to have an unmuffled exhaust. Construction activities would be limited to daytime hours. No noise-generating construction activity to be conducted within 1,000 feet of a residential structure between the hours of 10:00 p.m. and 7:00 a.m. Landowners directly impacted along the corridor will be notified prior to construction activities. Bonneville will take measures to restore reception to a quality of reception as good or better than before the radio or television interference. 	<ul style="list-style-type: none"> No impact
Public Health and Safety		
<ul style="list-style-type: none"> Health and safety risks for workers, farmers, aviators, and visitors 	<ul style="list-style-type: none"> Prior to starting construction, contractor would prepare and maintain a safety plan in compliance with Washington and Oregon requirements. This plan would be kept on-site and would detail how to manage hazardous materials such as fuel, and how to respond to emergency situations. During construction, the contractors would also hold crew safety meetings at the start of each workday to go over potential safety issues and concerns. At the end of each workday, the contractor and subcontractors will secure the site to protect equipment and the general public. Employees would be trained, as necessary, in tower climbing, cardiopulmonary resuscitation, first aid, rescue techniques, and safety equipment inspection. 	<ul style="list-style-type: none"> No impact

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Public Health and Safety, continued		
	<ul style="list-style-type: none"> ▪ To minimize the risk of fire, fuel all highway-authorized vehicles off-site. Fueling of construction equipment that was transported to the site via truck and is not highway authorized would be done in accordance with regulated construction practices and state and local laws. Helicopters would be fueled and housed at local airfields or at staging areas. ▪ Helicopter pilots and contractor take into account public safety during flights. For example, flight paths could be established for transport of project components in order to avoid flying over populated areas or near schools (Helicopter Association 1993). Contractors would also work with local crop dusters and agricultural businesses to minimize interruption in agricultural activity during construction (for instance, to schedule work or tower placement so it does not conflict with crop dusting and harvesting). ▪ Provide notice to public of construction activities, including blasting. ▪ Take appropriate safety measures for blasting consistent with state and local codes and regulations. Remove all explosives from the work site at the end of the workday. ▪ If implosion bolts are used to connect the conductors, install in such a way as to minimize potential health and safety risks. ▪ Inform construction and operation/maintenance workers that there is a Umatilla Army Depot emergency preparedness program in the event of a chemical release. ▪ Operation and maintenance vehicles would carry fire suppression equipment including (but not limited to) shovels and fire extinguishers. ▪ Stay on established access roads during routine operation and maintenance activities. Smoking would be prohibited. ▪ Keep vegetation cleared according to Bonneville standards to avoid contact with transmission lines. ▪ Submit final tower locations and heights to the Federal Aviation Administration for review and potential marking and lighting requirements. 	

Table 2-3, continued

Proposed Action		No Action
Potential Impacts	Mitigation Measures	Potential Impacts
Public Health and Safety, continued		
	<ul style="list-style-type: none"> ▪ Construct and operate the new transmission line to meet the National Electrical Safety Code. ▪ During construction, follow Bonneville specifications for grounding fences and other objects on and near the proposed right-of-way. ▪ <u>Should contaminated media be unexpectedly encountered during construction, work should stop and an environmental specialist called to characterize the nature and extent of contamination and determine appropriate State-approved measures to prevent spread and protect health and safety.</u> ▪ As necessary, employees would be trained in tower climbing, cardiopulmonary resuscitation, first aid, rescue techniques, and safety equipment inspection. ▪ If blasting is required, a notice would be sent to residents in the affected area. A public meeting would be held prior to blasting to inform residents and other interested parties of the date and time of the blasting and to answer questions. During blasting, appropriate safety measures would be taken as required by state and local codes and regulations. All explosives would be removed from the work site at the end of the work day. ▪ The corridor would be maintained to control tall grass that could potentially start fires via contact with hot vehicle parts. Trees and other tall vegetation would be trimmed to Bonneville standards to avoid contact with transmission lines. ▪ The towers are not expected to exceed 200 feet in height. However, Federal Aviation Administration laws would be followed regarding the placement of line markers to warn approaching aircraft. Bonneville would submit final locations and tower heights to the Federal Aviation Administration for review and requirements for markings and lighting would be addressed at that time. ▪ Because of the proximity of the proposed transmission line to agricultural fields, crop dusting pilots planning to enter the area would take suitable precautions to avoid collision with the proposed transmission lines. 	

Table 3-3: Acreage of Land Uses that Would Be Occupied by Permanent Project Facilities

Land Use	Acres Occupied by Permanent Project Facilities			
	Access Roads	Towers	Substations	Total Impacts
Cropland (irrigated and nonirrigated)				
Benton County	8.9	4.1	0	13.1
Klickitat County	2.3 8.3	1.2	0	3.5 9.5
Sherman County	0.8	0.4	0	1.2
Grazing Land				
Benton County	5.5	2.4	0	8.0
Klickitat County	29.2 38.2	9.5	0	39.1 48.1
Sherman County	0.8	0.1	0	0.9
Substation/Wildlife Area				
Umatilla County	0.5	0.4	2	3.0
Total	48 63	18.1	2	68.1 83.1

Table 3-4: Proportion of Agricultural Land in Each County that Would Be Occupied by Permanent Project Facilities

County	Total Agricultural Land in County (acres)	Agricultural Land Occupied by Permanent Project Facilities	
		Acres	Percentage
Benton	611,903	21.1	.003
Klickitat	588,732	42.6 57.6	.007 .009
Sherman	425,036	2.1	.0005
Umatilla	1,345,097	23.0	.0002
Total, All Four Counties	2,970,768	88.8	.003

**Table 3-5: Impacts of Short-Line Routing Alternatives:
Land Use and Recreation**

Alternative	Impacts
McNary Substation Alternatives	
A. Relocate administration building presently located on north side of substation adjacent to Wildlife Natural Area	Wildlife viewing may be temporarily obstructed during construction.
B. Cross Wildlife Natural Area; circumvent administration building on north side	Wildlife viewing may be temporarily obstructed during construction.
C. Place line in bus work at ground level on north side of administration building, inside Wildlife Natural Area	No recreation impacts are anticipated.
Hanford-John Day Junction Alternatives	
A. Move existing Hanford-John Day line north 200 feet to make room for new line on north side of corridor	Approximately 4.5 <u>3.0</u> acres of grazing land would be disturbed during construction <u>of six towers</u> . The permanent project facilities (towers and roads) would occupy approximately 0.25 <u>2.4</u> acres of grazing land. No recreation impacts are anticipated.
B. Place new line on south side of corridor	Approximately 3.2 <u>3.6</u> acres of grazing land would be permanently impacted (occupied by roads and towers) and about 0.5 <u>4.0</u> acres of grazing land would be temporarily impacted during construction <u>of eight towers</u> . No recreation impacts are anticipated. The occupants of the residence would be impacted by having their barn and shed removed. If the house requires removal, the residents would have to find new housing.
C. Place new line on south side of highway (occupied by roads and towers)	Approximately 3.2 <u>6.8</u> acres of grazing land and 3.1 acres of cropland would be permanently impacted <u>(towers and roads)</u> . Approximately 0.5 <u>5.0</u> acres of grazing land would be temporarily impacted during construction <u>of 10 towers</u> . No recreation impacts are anticipated. Impacts to the residence would be the same as Alternative B, though the towers would be located about 35 feet closer to the house.
Corridor Mile 32 Alternatives	
A. Keep existing and new lines on tribal land	Approximately 0.6 <u>0.8</u> acre of cropland would permanently impacted (occupied by roads and towers) and about 0.8 <u>2.0</u> acres would be temporarily impacted during construction <u>of four towers</u> . No recreation impacts are anticipated.
B. Relocate existing and new lines away from tribal land	Approximately 1.8 <u>1.0</u> acres of cropland would be permanently impacted (occupied by roads and towers) and about 2.25 <u>2.5</u> acres would be temporarily impacted during construction <u>of five towers</u> . No recreation impacts are anticipated.

Table 3-5, continued

Alternative	Impacts
Corridor Mile 35 Alternatives	
A. Keep existing and new lines on tribal land	Approximately 0.8 acre of grazing land would be permanently impacted (occupied by roads and <u>four</u> towers) and about 1.0 <u>2.0</u> acres would be temporarily impacted during construction. No recreation impacts are anticipated.
B. Relocate existing and new lines away from tribal land	Approximately 1.5 <u>1.0</u> acres of grazing land would be <u>permanently</u> impacted (occupied by roads and <u>five</u> towers) and about 2 <u>2.5</u> acres would be temporarily impacted during construction. No recreation impacts are anticipated.

Table 3-12: Permanent Impacts to Vegetation (acres)

Vegetation Cover Type	Total Acres in Project Area	Percent Cover in Project Area	Permanent Impacts from Tower Construction	Permanent Impacts from Road Operation & Maintenance	Substation Impacts	Total Permanent Impacts
Agricultural	1,409 <u>1,415</u>	31	5	12 <u>18</u>	0	17 <u>23</u>
Grassland	900	20	4	8	2	14
Grazed Shrub-Steppe	1,700 <u>1,709</u>	38	7	23 <u>32</u>	0	30 <u>39</u>
Riparian	38	1	0	0	0	0
Scabland/Lithosol Communities	294	7	1	3	0	4
Shrub-dominated Shrub-Steppe	132	3	1	2	0	3
Total	4,473	100	18	48 <u>63</u>	2	68 <u>83</u>

Table 3-13: Temporary Impacts to Vegetation (acres)

Vegetation Cover Type	Total Acres in Project Area	Percent Cover in Project Area	Temporary Impacts from Tower Construction	Temporary Impacts from Road Construction ¹	Conductor Tensioning Site Impacts ²	Total Temporary Impacts
Agricultural	1,409 <u>1,415</u>	31	28 <u>56</u>	12	7-15	47-55 <u>63-71</u>
Grassland	900	20	19 <u>38</u>	8	5-6	32-33 <u>43-44</u>
Grazed Shrub-Steppe	1,700 <u>1,709</u>	38	36 <u>72</u>	23	11-16	70-75 <u>83-88</u>
Riparian	38	1	0	0	0	0
Scabland/ Lithosol Communities	294	7	7 <u>14</u>	3	2	12 <u>16</u>
Shrub-dominated Shrub-Steppe	132	3	3 <u>6</u>	2	0-1	5-6 <u>6-7</u>
Total	4,473	100	93 <u>186</u>	48	26-39	166-181 <u>211-226</u>

~~¹ Temporary road impacts include new spur roads and a 3-mile segment between corridor miles 39 and 41. Temporary roadway impacts are based on a 50-foot construction corridor. The central 16 feet of the temporary roadway corridor would become a permanent impact.~~

²¹The range given for conductor tensioning site impacts is based on 3- and 2-mile intervals, respectively.

Table 3-14: Estimated Temporary Impacts to Native Plants and Cryptogamic Crusts by Cover Type

Vegetation Cover Type	Total Acres in Project Area	Total Temporary Impacts (acres)	Percent Cover of Native Plants	Impacts to Native Plants (acres)	Percent Cover of Cryptogamic Crusts	Impacts to Cryptogamic Crusts (acres)
Agricultural	1,409 1,415	47-55 63-71	0	0	0	0
Grassland	900	32-33 43-44	25	8 11	0	0
Grazed Shrub-Steppe	1,700 1,709	70-75 83-88	30	21-23 25-26	5	4
Riparian	38	0	20	0	0	0
Scabland/Lithosol Communities	294	42 16	15	2	10	4 2
Shrub-dominated Shrub-Steppe	132	5-6 6-7	65	3-4 4-5	20	1.0-1.2 1.2-1.4
Total	4,473	166-181	--	34-37 42-44	--	6.0-6.2 7.2-7.4

Table 3-15: Estimated Permanent Impacts to Native Plants and Cryptogamic Crusts by Cover Type

Vegetation Cover Type	Total Acres in Project Area	Total Permanent Impacts (acres)	Percent Cover of Native Plants	Impacts to Native Plants (acres)	Percent Cover of Cryptogamic Crusts	Impacts to Cryptogamic Crusts (acres)
Agricultural	1,409 1,415	17 23	0	0	0	0
Grassland	900	14	25	4	0	0
Grazed Shrub-Steppe	1,700 1,709	30 39	30	9 12	5	1.5 2
Riparian	38	0	20	0	0	0
Scabland/Lithosol Communities	294	4	15	1	10	0.4
Shrub-dominated Shrub-Steppe	132	3	65	2	20	0.6
Total	4,473	68 83	-	16 19	-	2.5 3

**Table 3-16: Impacts of Short-Line Routing Alternatives:
Vegetation**

Alternative	Impacts
McNary Substation Alternatives	
A. Relocate administration building presently located on north side of substation adjacent to Wildlife Natural Area	Approximately 2 acres of permanent impact to grassland communities for the new location of building.
B. Cross Wildlife Natural Area; circumvent administration building on north side	Cottonwood trees and some vegetation would be removed for tower sites and conductor clearance. These cottonwoods are somewhat unique given the dry conditions that prevail over most of the route. The are supported by a local seep. Since the seep will not be altered, similar moisture-dependent woody species will likely regenerate in the areas where cottonwoods are cut.
C. Place line in bus work at ground level on north side of administration building, inside Wildlife Natural Area	Approximately 0.7 acre of permanent impact to grassland communities for construction, operation and maintenance of 1,600 feet of bus work.
Hanford-John Day Junction Alternatives	
A. Move existing Hanford-John Day line north 200 feet to make room for new line on north side of corridor	Less than 1.3 acres of temporary construction impacts to <u>grazed shrub-steppe</u> for six relocated towers, 1.2 <u>2.4</u> acres of temporary <u>permanent</u> impacts from new access road construction for six relocated towers and associated , and 0.6 acre of permanent impact from new access road operation and maintenance.
B. Place new line on south side of corridor (occupied by roads and towers)	0.5 <u>4.0</u> acres of temporary construction impacts to <u>grazed shrub-steppe</u> for up to two-eight additional towers; 0.1 <u>3.6</u> acres of permanent impacts for two-eight additional towers; 3.1 acres of impacts resulting from and associated construction and operation and maintenance of new access roads; removal of up to 12 trees-of-heaven (<i>Ailanthus altissima</i>).
C. Place new line on south side of highway	0.5 <u>5.0</u> acres of temporary construction impacts to <u>grazed shrub-steppe</u> for up to two-10 additional towers; 0.1 <u>6.8</u> acres of permanent impacts for two-10 additional towers; 6.2 acres of impacts resulting from and associated construction and operation and maintenance of new access roads; removal of up to 12 trees-of-heaven (<i>Ailanthus altissima</i>)
Corridor Mile 32 Alternatives	
A. Keep existing and new lines on tribal land	0.75 <u>2.0</u> acres of temporary construction impacts for three-four new towers; 0.15 <u>0.8</u> acre of permanent operation and maintenance impacts for three-four new towers; 0.42 acre of impacts resulting from and associated construction, operation and maintenance of new access roads to three-the new towers. All impacts would occur in agricultural land.

Table 3-16, continued

Alternative	Impacts
B. Relocate existing and new lines away from tribal land	2.25 <u>2.5</u> acres of temporary construction impacts for nine <u>nine</u> five new towers; 0.5 <u>1.0</u> acre of permanent operation and maintenance impacts for nine <u>nine</u> five new towers; 1.26 <u>1.26</u> acres of impacts resulting from and associated construction, operation and maintenance of new access roads to nine <u>nine</u> the new towers. All impacts would occur in agricultural land.
Corridor Mile 35 Alternatives	
A. Keep existing and new lines on tribal land	1.0 <u>2.0</u> acres of temporary construction impacts for four new towers; 0.2 <u>0.8</u> acre of permanent operation and maintenance impacts for four new towers; 0.57 <u>0.57</u> acre of impacts resulting from and associated construction, operation and maintenance of new access roads to four new towers. All impacts would occur in grazed shrub-steppe.
B. Relocate existing and new lines away from tribal land	2.0 <u>2.5</u> acres of temporary construction impacts for eight <u>eight</u> five new towers; 0.4 <u>1.0</u> acre of permanent operation and maintenance impacts for eight <u>eight</u> five new towers; 1.14 <u>1.14</u> acres of impacts resulting from and associated construction, operation and maintenance of new access roads to eight <u>eight</u> five new towers. All impacts would occur in grazed shrub-steppe.

**Table 3-18: Impacts of Short-Line Routing Alternatives:
Wildlife**

Alternative	Impacts
McNary Substation Alternatives	
A. Relocate administration building presently located on north side of substation adjacent to Wildlife Natural Area	About 2 acres of marginal grassland habitat would be permanently lost due to the relocation of the building. There would be more impacts to small mammals and birds due to conversion of grassland to a developed site.
B. Cross Wildlife Natural Area; circumvent administration building on north side	Potential impacts to palustrine forested wetland dominated by willow, reed canarygrass and with some cottonwoods; would include the modification or permanent loss of nesting habitat for nesting passerine birds. Willows and cottonwoods would need to be cut to ensure adequate line clearance. There would also be an increased risk of waterfowl and water bird collisions due to the close proximity of the power line with waterfowl use areas on the wildlife refuge. Other impacts would include removal of grass and shrubs and ground compaction for towers and access roads, resulting in a loss of passerine nesting areas, and habitat for ground dwelling mammals, amphibians, and birds.
C. Place line in bus work at ground level on north side of administration building, inside Wildlife Natural Area	Crosses north end of wildlife area, but close to road. Negligible wildlife impacts.
Hanford-John Day Junction Alternatives	
A. Move existing Hanford-John Day line north 200 feet to make room for new line on north side of corridor	Temporary disturbance of 1-03.0 <u>4.3</u> acres to grazed shrub-steppe from relocating four six towers and construction new access road . Permanent impact of 0.2-2.4 <u>3.2-3.6</u> acres to grazed shrub-steppe. Close to highway. Negligible wildlife impacts.
B. Place new line on south side of corridor (occupied by roads and towers)	Temporary disturbance of 0.5-4.0 <u>3.2-3.6</u> acres of grazed shrub-steppe for tower construction and permanent loss of 3.2-3.6 <u>3.2-3.6</u> acres of grazed shrub-steppe for towers and access roads. Low impact to wildlife, because the line would be close to highway and through habitat of marginal wildlife value. Loss of 10 to 12 'tree of heaven' and black locust trees would incrementally reduce habitat for tree-nesting birds.
C. Place new line on south side of highway	Same temporary impacts as Alternative B Temporary construction impacts of 5.0 acres and permanent loss of 6.3-6.8 <u>3.2-3.6</u> acres of grazed shrub-steppe for towers and access roads. Low impact to wildlife because shrub-steppe habitat heavily grazed. Loss of tree habitat same as Alternative B.

Table 3-18, continued

Alternative	Impacts
Corridor Mile 32 Alternatives	
A. Keep existing and new lines on tribal land	No priority species documented in the area; however, this area of shrub-steppe is designated as Priority Habitat by WDFW. Grazing and fire have degraded the shrub-steppe habitat in this area, but passerines, mammals, reptiles and raptors may still nest, den, or feed in this area. Habitat quality is low as a result of disturbance from grazing, predominance of cheatgrass, and lack of continuity with other areas of shrub steppe. Potential impacts would include shrub and ground disturbance, but these would be negligible because of the degraded condition of the shrub-steppe in this area and the prevalence of this habitat type in the project area. See Vegetation section for mitigation measures.
B. Relocate existing and new lines away from tribal land	Temporary disturbance of about 0.9 <u>2.5</u> acres of agricultural lands (vineyards) having low wildlife value. <u>Permanent impact of 1.0 acre from towers and access roads.</u> As with Alternative A, this alternative would also cross shrub-steppe designated as Priority Habitat and potential impacts to wildlife habitat would be negligible due to the degraded condition and prevalence of this habitat type in the project area.
Corridor Mile 35 Alternatives	
A. Keep existing and new lines on tribal land	Negligible impacts to wildlife because line would be located in heavily grazed shrub-steppe which is marginal habitat..
B. Relocate existing and new lines away from tribal land	Same as Alternative A1, except more heavily grazed shrub-steppe habitat would be removed.

Chapter 4

Responses to Comments

This chapter presents comments received on the draft EIS, as well as Bonneville's responses to these comments.

Bonneville catalogued a total of about 350 comments. Most were submitted in writing by letter and at three public meetings. Telephone calls and e-mail messages to Bonneville also generated a few comments. Comments were received from Federal, state, and local agencies, as well as Tribes, private utilities, and private citizens living along the proposed line route.

Comments were made on Chapters 1 through 4 and on Appendix F. Comments on Chapter 1, Purpose of and Need for Action, focused largely on capacity issues and power need projections. Chapter 2, Proposed Action and Alternatives, attracted comments primarily on specific project alternatives and cost/budget issues. Two-hundred four (204) comments were made in the following areas of Chapter 3, Affected Environment, Environmental Consequences, and Mitigation: cultural resources (22%); land use (22%); streams, rivers, and fish (13%); vegetation (12%); wildlife (10%); public health and safety (6%); socioeconomics, public services, and utilities (6%); wetlands and groundwater (4%); geology, soils, and seismicity (3%); visual resources (1%); cumulative impacts (1%); and noise (less than 1%). Chapter 4, Consultation, Review and Permit Requirements, received comments related mainly to access and shoreline permit requirements, and Appendix F, Living and Working Safely Around High-Voltage Power Lines received one comment.

Comments are organized by chapter/section in accordance with the outline from the draft EIS. The following abbreviations have been used to identify the source of each comment:

HCC	Comments made at the April 8, 2002 public meeting at Hermiston Community Center, Hermiston, Oregon
PS	Comments made at the April 9, 2002 public meeting at Paterson School, Paterson, Washington
RS	Comments made at the April 10, 2002 public meeting at Roosevelt School, Roosevelt, Washington
E-M	Comments sent via e-mail

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PH Comments made via telephone

LTR Comments made via letters to Bonneville

Comments were designated with an identifying number based on the order in which the letter, e-mail, or other item of correspondence, etc. was received. The letters, e-mails, phone call logs, and meeting summaries that contain comments are copied in whole in Chapter 5 of this abbreviated final EIS.

A number of letters and e-mails regarding the Furman Ranch were received after the comment period. Bonneville was not able to provide written responses to the comments in these letters due to the public comment period timing, but many of the letters are copied in Chapter 5 and the comments will be taken into consideration in the decision-making process.

Purpose & Need (Chapter 1)

Need for Action

Comment: *What will the capacity of the line be? [HCC]*

Response: The proposed new transmission line conductor would be a triple bundle Deschutes; at 100 degrees C, it would be rated at 4,560 amps. Depending on the operational variables, the line would have a capacity between 1,400 and 2,300 MW.

Comment: *How much will Newport use? [HCC]*

Response: A long-term, point-to-point Transmission Service Agreement would be negotiated between Bonneville and Newport Northwest, LLC for the Wallula Power Project. Wallula's proposed reserve capacity would be for about 50% of the capacity of the line.

Comment: *Last guy on the system is the first one off if generation exceeds capacity of line. [HCC]*

Response: Each Transmission Service Agreement is different. If generation exceeds capacity, the generation that would be taken off the line would depend on the written agreement (firm, non-firm, etc.).

Comment: *Is the construction of this line contingent on signing up enough customers? [PS]*

Response: Yes. If the customers requesting firm transmission service do not sign contracts, there would not be a need to increase the capacity of the transmission system in this area.

Comment: *On the existing generating projects, redundancy and transfer capabilities already built into the system. [RS]*

Response: Yes, that is correct.

Comment: *What will make California short on power again? [RS]*

Response: There were a number of issues and situations, which resulted in the California power shortage last summer. The state has since implemented a variety of corrective actions, which it hopes will alleviate any future power shortages.

Comment: *How long will this line carry it before needing another? [RS]*

Response: The proposed line would have a capacity of 1,400 to 2,300 MW. If the power flow through the area exceeds the capability of the lines in the area, a new line or other facility improvement would be needed. It is uncertain at this time if and when another new line would be needed.

Comment: *The EIS states that Bonneville is facing two problems regarding power flow on the Federal Columbia River Transmission System (FCRTS): there is not enough electricity being generated to meet demand, and many of Bonneville's transmission lines are now at capacity and cannot carry more power. The draft EIS issued by the Federal Energy Regulatory Commission for the proposed Irene Creek and Anderson Creek Hydroelectric Projects in the Skagit River Basin states that "although energy shortfalls occurred in the Western Systems Coordinating Council [WSCC] region in 2000-2001, reserve capability as a percent of firm peak summer demand is projected to increase from 22.4 percent in 2001 to 46.7 percent in 2008, and falling to 36.8 by 2010." This statement is consistent with the slowing influx and the slowing economy in the west coast cities of Seattle and Portland... [LTR 008]*

Response: The two power flow problems identified in the draft EIS are intended to provide an overview of power planning issues facing the region now and in the future. However, the action proposed by Bonneville in the draft EIS is intended only to respond to the problem of insufficient transmission capacity and reliability, not the problem of insufficient electricity generation. As discussed in the draft EIS, private generation developers are addressing the problem of insufficient electricity generation.

The information from the FERC draft Supplemental EIS for the Irene Creek and Anderson Creek Hydroelectric Projects that is cited by the commenter is noted. As discussed above, Bonneville's proposed action is being proposed to respond to the need

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for more transmission capacity, not the need for more power. Because the reserve capability projections discussed in FERC's EIS concerns power capability, not transmission system capacity, these projections are not directly relevant to the need for Bonneville's proposed action. If anything, this information illustrates that power capability is expected to grow (as shown by the amount of power reserve growth outstripping power demand growth), thus further pointing out the need for Bonneville to construct additional transmission capability in the region to adequately and reliably transmit this additional power to areas of power demand.

It is worth noting that the projections in FERC's EIS are for the entire WSCC (now the Western Electricity Coordinating Council (WECC)) region, which includes 14 western states and British Columbia, Canada. For Bonneville's more geographically limited service area, Bonneville is still projecting a need for more power in the future, as discussed on page 1-2 of the draft EIS. This expectation is supported by Bonneville's latest energy projections, which conclude that the Pacific Northwest region faces a firm energy deficit of approximately 7,125 average megawatts (aMW) by 2011 if no new resources are developed. *Pacific Northwest Loads and Resources Study* ("White Book"), Bonneville 2002. Even if the projections in FERC's EIS held true for the Pacific Northwest, these projections assume the development of the proposed generation in the region and do not forecast the deficit conditions that would exist without this development.

Finally, while the region is currently in a period of arguably slow growth, Bonneville must make decisions based on long-term projections. As has been frequently demonstrated in the Pacific Northwest and other parts of the U.S., economies go through alternating cycles of growth and recession. For example, the sustained period of growth in the 1990s has been followed by a relatively short-term period of recession in the early 2000s. In the Pacific Northwest, the overall, long-term trend is one of growth, which is expected to continue into the foreseeable future. Basing decisions on short-term slow growth periods does not correspond appropriately to the more frequently occurring periods when the regional economy is growing and the demand for electricity increases. Planning and developing a transmission system at such a late stage is not feasible as it takes several years to get such a system in service. Therefore, Bonneville does not believe it would be wise to rely on the present slow down in the economy as a significant factor in fully assessing future demand.

Comment: *The EIS should include power need projections that demonstrate that building the proposed transmission line is needed to ensure power reliability. [LTR 008]*

Response: Power need projections for the region are provided on page 1-2 of the draft EIS and in the preceding response to the comment requesting information on Bonneville's most recent power deficit projections. Because the proposed transmission line is being proposed to address the need for additional transmission capacity and not

because of the regional power deficit problem, power need projections are not directly relevant to an assessment of the need for the proposed action.

Comment: *The statement that many of Bonneville's transmission lines are now at capacity does not indicate that a transmission line, specifically the one between the McNary and John Day dam facilities is needed. [LTR 008]*

Response: As discussed on pages 1-1 to 1-3 of the draft EIS, there are several reasons that additional transmission capacity between the McNary and John Day Substations is needed. First, the transmission lines specifically in this transmission corridor are currently at or near capacity; therefore, Bonneville needs to provide additional capacity along this corridor to help relieve this congestion and ensure system reliability consistent with its statutory obligations. Second, Bonneville believes that the improvements now needed for this corridor are beyond the system "patches"—substation upgrades, conservation, and other non-wire solutions—that Bonneville has used over the last decade to remedy system constraints and congestion.

Third, and perhaps most important, additional transmission capacity is needed in this corridor due to requests from new generation developers in southeast Washington and northeast Oregon to interconnect to Bonneville's system and acquire firm transmission service. When a developer requests firm-transmission service, Bonneville's system planners run studies to determine if the system can handle the new generation flowing on the system. These studies include System Impact Studies and System Facility Studies. Based on these technical studies, Bonneville can determine where there may be system failures, bottlenecks, or equipment rating exceedances. The studies conducted by Bonneville for the new power development in southeast Washington and northeast Oregon, which have been incorporated by reference, show that this development requires the construction of the proposed line to adequately and reliably transmit the power to areas of high power demand on the west side of the Cascades.

Comment: *The purpose and need statement in the EIS should explain "why here" and "why now." ...This question is especially relevant because Bonneville is concurrently proposing the construction of multiple transmission lines without explaining how the individual projects would address the larger need. This information should be included in the EIS. [LTR 008]*

Response: By providing information on the existing and projected transmission constraints, specifically in the corridor between the McNary and John Day Substations, Bonneville believes that Chapter 1 of the draft EIS adequately explains why the proposed action is needed now and in its proposed location. While the need to improve the transmission system throughout the region could be viewed as a generalized need, each individual transmission project that is proposed has its own independent need and responds to transmission problems and issues specific to its proposed location.

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Comment: *Page 1-1 states that presently, Bonneville is facing two problems regarding power flow on the system: there is not enough electricity being generated to meet demand, and many of Bonneville's transmission lines are now at capacity and cannot carry more power. The EIS should discuss how the demand for electricity generation and transmission is determined. [LTR 008]*

Response: The demand for electricity generation (resources) is determined by the market, meaning the amount of electricity demanded by Bonneville's customers. When determining projected resource demand, Bonneville makes reasonable forecasts of future load conditions based on numerous assumptions and projections, as described in Bonneville's latest White Book. (BPA 2002.) For transmission capacity, the ability of Bonneville's lines to adequately and reliably serve existing and projected transmission demand is analyzed through the technical studies described in the previous response to comments. Through these studies, Bonneville can determine whether the transmission system can accommodate the new transmission request in addition to all its existing contractual obligations, while maintaining system reliability.

Comment: *Page 1-1 states that southeast Washington and northeast Oregon is a prime area for power generation because of sufficiency of wind or access to gas pipelines, as well as access to high voltage transmission lines. The EIS should describe how providing additional transmission infrastructure in the area could make the area additionally attractive for even more power generation and the cumulative impacts of concentrated transmission in this area. [LTR 008]*

Response: As discussed on page 1-2 of the draft EIS, the proposed transmission line is needed to adequately and reliably transmit power from two large-scale generation projects in the general vicinity that have been proposed by private developers and would be expected to interconnect with Bonneville's transmission system. If these proposed generation projects are not developed, other proposed generation projects would be expected to use the transmission capacity of the proposed transmission line. The cumulative impact of all of the reasonably foreseeable generation projects in the project vicinity are discussed in the Cumulative Impacts section of Chapter 3 in the draft EIS. Because Bonneville reasonably expects that some combination of these various proposed generation projects would be built and would fully utilize the capacity of the proposed transmission line, the proposed action is not expected to make the area additionally attractive for other generation projects not already discussed in the draft EIS.

Comment: *Page 1-1 states that Bonneville has a statutory obligation to ensure that there is sufficient capacity and reliability in Bonneville's transmission line. The EIS should define sufficient capacity and reliability, state existing capacity and reliability levels, and identify the difference between the required capacity and reliability levels and existing levels. [LTR 008]*

Response: As discussed on pages 1-1 and 1-2 of the draft EIS, Bonneville's statutory obligation to ensure sufficient transmission capacity and reliability arises primarily from the Federal Columbia River Transmission Act (16 U.S.C. §§ 838-838k). Because this Act does not specifically define what constitutes sufficient capacity and reliability, Bonneville applies its own reasonable definitions of these terms, based on common usage and industry standards.

Concerning capacity, the capacity of the transmission system or a line is the amount of electricity it can carry. The capacity of a line varies depending on the voltage capacity of the conductor, the strength of the conductor and towers, the design of the lines, weather conditions, etc. Capacity is sufficient if a line can carry the electricity that needs to flow through the line. As discussed on page 1-1 of the draft EIS, the existing transmission lines between the McNary and John Day Substations are being fully utilized at almost all times, and are not capable of providing additional firm transmission service. While the existing lines may have capacity to carry additional power at low use times of day or year, they do not have the capacity to carry additional power during the times when this additional power is actually needed or generated. The proposed transmission line would be capable of carrying 1,400 to 2,300 MW and would have sufficient capacity to carry the additional power proposed to be generated in the region.

Reliability and capacity are interrelated. If a line exceeds its capacity, its reliability is compromised (lines sag below safety clearances, system components can fail). Reliability/capacity criteria are established through numerous standards (National Electric Safety Code, Western Electricity Coordination Council, Bonneville Reliability Criteria). These criteria also take into account scheduled and unscheduled outages of system facilities, as well as the ability for the system to withstand sudden disturbances, such as electric short circuits or unanticipated loss of system facilities. When interconnection of the new generation proposed in the region to Bonneville's existing lines is factored in, the capacity (hence reliability) ratings of these lines would be exceeded. Construction of the proposed line would ensure sufficient transmission capacity and reliability.

Comment: *The EIS should list power projects scheduled to go on line, the power each proposed plant would develop, the chance that each proposal would go on line, and projections of the total power produced versus projected need for power. [LTR 008]*

Response: Pages 1-5 through 1-7 of the draft EIS list the proposed power projects in the area and the power each plant is proposing to produce. Given the volatility of the market, it would be speculative to try and predict which proposal would be fully developed. Since the draft EIS was released, the Starbuck Power Project was put on hold and the Mercer Ranch project was cancelled. As described in the draft EIS, the proposed transmission line would have a capacity of 1,400 to 2,300 MW. This line would not be able to carry all the power proposed to be generated in the area. If some plants fail to be built, others would be able to utilize the line.

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The need for power was discussed in Chapter 1 of the draft EIS and is also addressed in other responses to comments on this subject.

Comment: *The draft EIS begins by describing Bonneville's responsibility for purchasing, developing, marketing, and transmitting electrical power to utility, industrial, and other customers in the Pacific Northwest. We believe that the EIS requires additional supporting information indicating 1) if the need for additional power in the Pacific Northwest exists now and would be needed in the future, and 2) if so, to what extent would power transmitted via the proposed line serve Pacific Northwest customers versus customers outside the Region. [LTR 008]*

Response: The information in the draft EIS sufficiently describes the regional need for power (see the previous responses to comments). Regarding who would be served by power generated in southeast Washington and northeast Oregon and transmitted via the proposed transmission line, this information is not necessary for determining the need for the proposed action or assessing its potential environmental impacts. However, the following information is provided.

The proposed transmission line would transmit power generated in southeast Washington and northeast Oregon to the west side of the Cascades. From there, it is impossible to determine who precisely is served by this power because it would become just an indistinguishable part of the general pool of electricity flowing on the transmission system once it is in the system. This system would be able to carry the power to various Pacific Northwest customers, including the high demand areas of Portland and Seattle. This system could also carry power south to California or north to Canada. Precisely who is served with this power would depend on where demand occurs. Because there is projected increased demand in the Pacific Northwest, it is expected that much of the newly generated power transmitted by the proposed line would serve this demand. However, some power could also be used as part of the traditional exchange of power between the Pacific Northwest and California. Through this exchange, the Pacific Northwest transmits power to California in the summer when there is more need for power in California and less need for power in the Northwest. In the winter, when this need is reversed, California transmits power to the Pacific Northwest. However, the amount of power that would be transmitted through this exchange is difficult to accurately predict due to its variability. In addition, regional demand varies with changes in weather patterns, which have shown wide variations in the recent years with hotter summers throughout the Pacific Northwest and other regions (such as California) occurring simultaneously.

Decisions to be Supported by the EIS

Comment: *When will a decision be made on the project? [RS]*

Response: Bonneville plans to make a decision in early fall 2002. The decision will be recorded in a Record of Decision that will be published in the Federal Register and distributed to those on Bonneville's mailing list.

Comment: *Page 1-3 states that if the decision is to build a new transmission line, Bonneville would determine the exact locations of the towers and access roads and choose among the mitigation measures identified in the EIS. The site-specific elements of the project need to be defined in the EIS in order to analyze the effects of constructing and operating the specific transmission line being evaluated in the EIS. [LTR 008]*

Response: The specific elements of the proposed action are described in Chapter 2 (Proposed Action and Alternatives) of the draft EIS. These elements are described in sufficient detail to allow a reasonable and meaningful analysis of the potential environmental consequences of implementing the proposed action (see Chapter 3 of the draft EIS). This analysis involved identifying the corridor that would be used by the proposed action, collecting data for various resources within and adjacent to that corridor, and determining the potential acreage of permanent and temporary impacts from transmission line construction and operation (including from transmission towers and access roads) within that corridor, based on the specific elements of the proposed action. In addition, Bonneville intends to use as much of the existing road system as possible. These roads have been surveyed and impacts considered. The precise locations of transmission towers and new access roads or spur roads have not yet been identified to allow siting flexibility to avoid sensitive resources as they exist at the time the line is actually built. After Bonneville decides whether or not to proceed with the proposed action, it can commit the agency resources needed to complete the final design work required to identify the precise locations of these elements.

Public Involvement

Comment: *How far along are you in the project process? [PS]*

Response: The draft EIS has been released for public the comment. This final EIS publishes the comments received on the draft EIS, responds to those comments, and revises the final EIS based on the comments, as appropriate. After the final EIS is released to the public, there is a 30-day waiting period before a decision on the project is made. Bonneville hopes to release a Record of Decision on the project by October 1, 2002. If the decision is to construct the proposed line, construction could begin by late fall 2002.

Comment: *Looks like my comments from scoping were addressed in the EIS. [RS]*

Response: We are glad to hear that. Thank you for taking the time to comment.

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Comment: *Will there be another opportunity to comment, after this comment period?* [RS]

Response: There are no more official opportunities after the comment period on the draft EIS. However, if comments are received after the final EIS is released, Bonneville will consider those when making a decision on the project.

Other Projects

Comment: *Your map should also show the existing generation facilities, rather than just the proposed sites.* [RS]

Response: The map shows the proposed facilities because those are the facilities that would add new power to the system thereby creating the need to increase the capacity of Bonneville's system.

Comment: *Are you still doing an EIS on Starbuck?* [RS]

Response: The Starbuck Power Project has been put on hold since the McNary-John Day draft EIS was published. The draft EIS for the Starbuck Power Project has not been completed.

Comment: *Does this project impact the Mercer Ranch Project? What is the status?* [PS]

Response: The Mercer Ranch Project has been cancelled since the McNary-John Day draft EIS was published. The Mercer Ranch Project would have required a new substation adjacent to the proposed McNary-John Day transmission line. The proposed transmission line would probably have looped into that new substation.

Comment: *The purpose and need or alternatives sections should also include the rationale for limiting the scope of the project to the proposed transmission line between termini at the John Day and McNary substations versus extending it, possibly between the proposed Wallula power project and McNary substation since an additional line is proposed there.* [LTR 008]

Response: The proposed action has been proposed specifically to respond to the need to relieve existing and projected transmission congestion between the McNary and John Day Substations. While the proposed action would serve new generation projects such as the Wallula Power Project, the McNary Substation is a logical terminus for the proposed action. In addition, because the proposed action could serve a variety of power generation projects proposed in the region by private developers (see Chapter 1 of the draft EIS), the proposed action has independent utility from any one specific generation project, and thus merits its own individual analysis.

Proposed Action and Alternatives (Chapter 2)

Location

Comment: *Would you rather have the lines next to each other? [RS]*

Response: Bonneville prefers to have the transmission lines adjacent to one another. Parallel transmission lines generally have less environmental impact; rights-of-way and access roads can be shared, with less vegetation removed, less habitat disturbed, and often a minimal impact on land use. It is also easier to maintain parallel lines. However, there are reliability requirements that dictate how close and which lines can parallel one another.

Comment: *What are we doing at 67/1? [RS]*

Response: In this area, the existing lines are on the south side of the highway and the proposed line would be on the north side of the highway.

Comment: *It would be no problem building a tower at 68/1. [RS]*

Response: In this area, the existing lines cross back to the north side of the right-of-way and would join the proposed line right-of-way.

Existing Corridor (ROW)

Comment: *It's convenient that there is a wide enough right-of-way to accommodate the New Line. [PS]*

Response: Yes, when the original lines were constructed, additional right-of-way was purchased.

Comment: *Will towers be on the North or South side of existing towers? [PS]*

Response: Starting on the north side of the Columbia River where the line turns to parallel the river (corridor mile 3, near Plymouth), the proposed transmission line would be located on the north side of the existing lines. At about mile 68 (where the Hanford-John Day line joins the corridor), the line would cross to the south side of the existing lines.

Comment: *You'll have to buy right-of-way from the Aluminum Plant. [RS]*

Response: Bonneville would utilize its existing transmission line right-of-way for most of the project. Wherever the proposed new alignment for the transmission line

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leaves the existing right-of-way, Bonneville would need to acquire easements to build, operate, and maintain the proposed transmission line facilities. Landowners would be contacted and offered fair market value for the easements, established through the appraisal process.

Comment: *Is there any plan to use wide right-of-way's at this place? (T7NRZIE Sec. 14, 12 GL ENN Williams) [RS]*

Response: We were not able to locate this place within the project area.

Comment: *The EIS should state the level of certainty that Benton County PUD would request electrical service. If Benton County PUD receiving electrical service is a reasonably foreseeable future action (e.g., a signed agreement already exist), the EIS should incorporate this proposed activity into the scope of the project. Environmental studies supporting this activity should be completed prior to issuance of the final EIS, and, if appropriate, the alternative section should explain options associated with the hookup. [LTR 008]*

Response: There is no signed agreement with Benton County PUD for electrical service and details of that service are unknown. Therefore it is not possible to analyze the potential impacts in this EIS. Appropriate NEPA review would be conducted when further information is available.

Towers

Comment: *Do you use concrete for the tower footings? [RS]*

Response: Only in certain circumstances is concrete used for the tower footings. For this project concrete tower footings would probably only be used at the McNary River crossing where the tower footings would be located in wet areas. Some language has been added about concrete footing to Chapter 2, page 2-5.

Comment: *How far can you span between two towers? [RS]*

Response: Typical spans for this project would be 1,000 to 1,300 feet. With special heavier, taller structures and certain terrain (such as at river crossings) spans can be much greater.

Comment: *What type of towers will be used? [RS]*

Response: As described on pages 2-4 through 2-6 of the draft EIS and shown in Figures 2-2 and 2-3, lattice steel delta configuration towers with overhead ground wire would be used.

Conductors

Comment: *How much more does the 500 kV cable weigh as compare to the existing lines? [RS]*

Response: The proposed conductor would weigh about three times more than the conductor on the existing 230-kV transmission line.

Comment: *The EIS should define bus work. [LTR 008]*

Response: Bus work is defined on page 2-5 of the draft EIS as electricity running on a pipe instead of on conductors. The pipe is set about 30 or 41 feet off the ground and the area is fenced.

Page 2-5, paragraph 5 has been clarified regarding bus work.

Access Roads

Comment: *Would like to see an access plan between Sundale and Rock Creek. [RS]*

Response: Bonneville is working with the landowner on the access road plan through this area.

Comment: *Whose responsibility is it to maintain the roads? Will you make sure it is in as good of shape after construction, as it was before construction? [RS]*

Comment: *Access roads, if we use an access road for other things, will they be put back in original condition? Who does that? [RS]*

Comment: *I'm concerned that the roads used by Bonneville and its contractors will be left damaged and not repaired. Problems have occurred in the past and damages were never repaired, even after calls had been placed to Bonneville. [RS]*

Response: Bonneville shall repair damages to the access roads caused by or arising out of its use. Bonneville would be responsible for leaving roads and the right-of-way in as good or better condition than prior to construction. Landowners may contact the Bonneville Project Manager (Gary Beck, 503/230-6596) if road repairs are not completed.

A mitigation measure has been added to page 3-12 of the EIS regarding repairing access roads.

Comment: *Access roads -- look at graveling roads from county road up to maintenance road. [RS]*

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Response: In locations where landowners gravel existing access roads, or where erosion potential of native soil roads is high, the access roads would be graveled.

Staging Areas

Comment: *The EIS should describe temporary staging areas (a map of their locations), their uses, and how they will be restored. EPA is concerned that the use of such areas for refueling or lubricating equipment might result in the contamination of the surrounding area (through fuel spills and stormwater runoff) and that these areas might not be fully restored. [LTR 008]*

Response: Temporary staging areas for vehicles and equipment are described on page 2-8 of the draft EIS. Potential impacts of the staging activities are described as part of the environmental analysis. The exact location of the sites will not be known until just prior to construction. Potential impacts at the sites will be mitigated by a Storm Water Pollution Prevention Plan (which will include a Spill Prevention Plan). In addition, the construction contractors will be provided with maps outlining areas to avoid and a list of general and site-specific mitigation measures. Site restoration would include staging areas.

Substation Work

Comment: *How will you tie into bays at McNary? [HCC]*

Response: The 500-kV yard is located on the east side of McNary Substation. The new McNary-John Day transmission line would come out of bay 7 on the north side of the 500-kV yard and head west over the McNary powerhouse lines.

Line Planning and Construction

Comment: *If Bonneville moves an existing tower, how will the area be restored? [RS]*

Response: If Bonneville removes or relocates an existing tower, Bonneville is responsible for restoring the area to as good or better condition than prior to construction.

Comment: *How much of the tower and base will be left? [RS]*

Response: In places where existing towers would be removed, all of the above ground portions would be removed and the underground footings would be left in place.

Comment: *Do you construct every tower on-site? [RS]*

Proposed Action and Alternatives

Response: Typically we construct every tower onsite and lift them into place with a crane. In some locations where on-site construction is not possible (i.e. steep terrain), the tower is built off-site and lifted into place with an aircrane.

Comment: *What size equipment do you bring in? [RS]*

Response: The largest piece of equipment brought to each tower site is a 100-ton crane used to lift the towers up onto the footings.

Comment: *The EIS should contain the results of surveys including 1) determinations of the profile of the ground, 2) the proposed locations for towers, roads, and staging areas, and 3) the required right of way. [LTR 008]*

Response: This level of survey information is not developed until the project design phase. The draft EIS discusses the general terrain, locations of towers, and roads and additional right-of-way needed.

Comment: *A four (4) mile fire guard runs down Rock Creek, surveyors have to drive down and need to turnaround to come back. [RS]*

Response: Thank you for the information. Bonneville will inform the surveyors of this dead-end to help alleviate unnecessary traffic.

Construction Schedule

Comment: *Assuming you get funding, what is the timeline? [HCC]*

Comment: *When would the project get started? [PS]*

Comment: *When will construction start? [RS]*

Response: If the decision is to construct the project, Bonneville would anticipate some construction to start in fall 2002 and the project to be completed by fall 2004.

Comment: *I was expecting to see some towers being put up on the side of the road. [PS]*

Response: Consistent with its obligations under NEPA, Bonneville would not begin construction of the proposed action until after a final decision to proceed with the project is made.

Comment: *Is it possible to construct this area in the winter? [RS]*

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Response: Depending on the weather, Bonneville anticipates that parts of the line would be built during the winter months.

Cost

Comment: *Where is this project in regard to funding? [HCC]*

Comment: *How certain is funding? [HCC]*

Comment: *Was project put in budget for full funding? [HCC]*

Comment: *You're already talking about third party financing. [HCC]*

Comment: *With the current energy situation, do really think you'll be able to get third party financing? [HCC]*

Comment: *Where is the funding for this project coming from? [PS]*

Response: The current proposed plan is for Bonneville to fund portions of this project, but the majority of the cost would be from third-party financing. Bonneville is presently negotiating with a group of investors for third-party financing of this project.

Comment: *How much will the project cost, including interconnecting to substation? [HCC]*

Comment: *You're looking at how many million to put the project up? [RS]*

Response: The estimated cost for constructing the entire project is about \$100 million.

Comment: *Do the increased funds at the legislative level affect this project? [PS]*

Response: Bonneville is currently requesting the Federal Legislature to increase our federal borrowing authority. This project is not dependent on receiving an increase in our borrowing authority.

Hanford-John Day Alternative

Comment: *What is the latest proposal at 68/6? (Where Hanford-John Day comes in.) [PS]*

Response: Because of reliability reasons, Bonneville does not allow two 500-kV transmission lines to be closely adjacent to one another for a long distance. Once the 500-kV Hanford-John Day line joins the corridor, the proposed line would need to move to the south side of the right-of-way in order to meet reliability criteria. However,

Proposed Action and Alternatives

Bonneville is considering three alternatives in this area. The north side alternative is designed to avoid impacting the homestead and is the preferred alternative. With this alternative, the line would be adjacent to the Hanford-John Day line for a short enough distance that the location would still meet reliability criteria.

Comment: *Would prefer Bonneville to cross/stay north side and span at 70/1 - 70/2, to avoid archaeological site. [PS]*

Comment: *Would prefer alternative at 68/6, moving line to the north. [PS]*

Response: Bonneville is considering the north side alternative; early engineering studies show that it would be able to span the archaeological site.

Comment: *The barn on Goldendale Aluminum's property will need to be removed since it is in the new right-of-way. Will you rebuild barn? [RS]*

Response: Bonneville would offer fair market value for the transmission line right-of-way as well as the barn. Bonneville would pay for either a commercial move or self move of the personal property stored in the barn. Bonneville would also pay for storage of the personal property for a period not to exceed 12 months if the owner of the property needed to store it on property that the owner did not already own or lease. Bonneville would not pay to rebuild the barn.

Comment: *We're concerned about where you're crossing. Can you avoid the hayfield owned by the Lee's? (see sheet 68) [RS]*

Response: If either one of the south side Hanford-John Day Junction Alternatives was chosen, one tower would be located in the hayfield with a temporary access road for construction purposes. Please see additional comments on the Hanford-John Day Alternatives page and pages 2-12 to 2-13 and Figures 2-5, 2-6, and 2-7 of the draft EIS.

Comment: *[The north side alternative] wouldn't have so many jogs in the line or road crossings. [RS]*

Response: The north side alternative would have the same number of highway crossings as the south side Alternative C and one less crossing as Alternative B. The north side Alternative A would look cleaner from the highway and from the house.

Comment: *It would be easier to relocate eight (8) towers at corridor mile 69 and 70 rather than purchase new right-of ways. [RS]*

Response: New easement would need to be purchased for both the north and south side alternatives at the Hanford-John Day Junction.

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Comment: *If you stay on the north side, you'd avoid highway crossings and it would look a lot better having all the lines running parallel to one another. [RS]*

Response: Bonneville agrees that the visual impact would be less with the north side alternative. Please see comments regarding Alternative A, North Side.

Comment: *It is easiest to work in corridors miles 69 and 70, it's relatively flat and not too rocky. [PS]*

Response: Yes, the terrain is relatively easy to work with in this area.

Comment: *How much right-of-way is needed in the 68 mile area? (68/5 - 70/1) [RS]*

Response: For the south side alternatives, about 150 feet of additional right-of-way would be needed. For the north-side alternative, about 100 feet of additional right-of-way would be needed.

Corridor Mile 32-35 Alternatives (Tribal)

Comment: *How many more pieces like this one are along the way? (Alternative at corridor mile 32.) [RS]*

Comment: *When will you know whether you will reroute around tribal parcels? [RS]*

Comment: *What are the options around 32/1? [RS]*

Response: There are two Tribal parcels along the existing transmission line right-of-way in which the easements are due to expire; those parcels are located at corridor miles 32 and 35. The preferred alternative is to cross the Tribal parcels (Alternatives A at corridor miles 32 and 35); however, Bonneville is considering routing the entire corridor around the Tribal parcels. Decisions for most of the project will be announced in the Record of Decision scheduled to be released in early October 2002. However, Bonneville will be negotiating with the Yakama Nation until mid-November 2002 regarding renewing easements, so the decision to route around or cross the tribal parcels will not be announced until after November 2002.

Comment: *Is there any way you could draw out the alternative at mile 32 on a photo map? [RS]*

Response: Bonneville is currently working with the farm manager on potential locations for towers and access roads in the vineyard along Alternative B at corridor mile 32.

Comment: *The EIS should contain more information explaining why a significant part of the alternatives' development focused on considering moving the corridor off tribal lands. Are tribal owners requesting that the transmission lines not cross their lands? The EIS should identify which alternatives are more consistent with meeting federal tribal trust responsibilities. [LTR 008]*

Response: Sufficient information concerning why alternatives were developed for the proposed transmission line at locations where the line would cross lands owned by Tribal members or the Tribes is provided on page 2-13 of the draft EIS. As described on page 2-13, existing rights-of-way easements that are held by Bonneville on these lands are due to expire in 2003. Because the landowners may choose not to extend the terms of these easements, Bonneville needs to consider development of the new line (and relocation of the existing lines that follow the easements) off of these lands as an alternative to the proposed action. For any alternative where Tribal-owned lands are an issue, Bonneville will act consistently with its 1996 Tribal Policy (Appendix A and available at <<http://www.bpa.gov/Corporate/KT/tribpolx.shtml>>), which outlines the foundation of Bonneville's trust responsibilities as a Federal agency.

Comment: *If you could put towers near 33/1 you won't have a problem. [RS]*

Comment: *Where would the other tower end up (near tower 33/1)? Could you re-engineer this section and show me on a map? [RS]*

Response: If Corridor Mile 32, Alternative A were selected, then a proposed tower would be located adjacent to tower 33/1. If Alternative B were selected, then the existing towers, as well as the proposed new towers, would be moved just south of the existing right-of-way. We are working with the landowner/commenter on the design for this alternative.

No Action

Comment: *Page 1-3 identifies the following as a decision to be made: Bonneville must decide whether or not to build the proposed McNary-John Day transmission line. The cursory level of treatment given to the No Action Alternative indicates that it is not an option given serious consideration. Tables S-2 and 2-1 do not lay out impacts resulting from implementation of the No Action Alternative and Chapter 2 describes the No Action Alternative in two sentences. [LTR 008]*

Comment: *The EIS presents the No Action alternative in a very cursory fashion using two sentences and does not include it in tables for comparing the effects of alternatives. The EIS should discuss and evaluate the No Action alternative in greater detail and include it for comparison purposes as directed by the NEPA regulations (40 CFR 502.14). [LTR 008]*

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Response: The analysis of the No Action Alternative in the draft EIS should not be construed as an indication that this alternative will not be seriously considered by Bonneville. The level of analysis provided for this alternative is merely a reflection of the lack of action (and hence impacts) that would occur under this alternative. The commenter is correct in noting that Tables S-2 and 2-1 of the draft EIS do not lay out impacts resulting from implementation of the No Action Alternative; these impacts are identified in Table 2-3 of the draft EIS. In addition, these impacts are discussed throughout Chapter 3 of the draft EIS in subsections entitled “Environmental Consequences – No Action Alternative.” Furthermore, these impacts are identified for each environmental resource in the Summary section of the draft EIS. Finally, in addition to the description of the No Action Alternative in Chapter 2, Table 2-1 provides additional information about this alternative by comparing it to the stated purposes of the proposed action.

Alternatives Eliminated

Comment: *Did you look at the alternative of building the line on the Oregon side? [PS]*

Response: Bonneville considered routing alternatives in Oregon. These alternatives were eliminated from further consideration as discussed in Chapter 2, page 2-17 of the EIS.

Comment: *Page S-7 states that the overall cost of removing one of the existing lines and constructing a double circuit line would be much greater than constructing the single circuit line. The EIS should state if the benefit-cost analyses referred to in this sentence includes environmental costs. If not, the EIS should incorporate environmental costs in the analyses of overall costs. [LTR 008]*

Response: In order to be feasible, alternatives must meet the need for the project as well as the purposes. The following are the purposes or objectives of this project: maintenance of transmission system reliability; consistency with Bonneville’s environmental and social responsibilities; and cost and administrative efficiency. The costs described for the double-circuit alternative referred to by the commenter do not include environmental costs. The environment was considered in terms of the potential impacts, not costs.

Comment: *We recommend that the EIS reexamine this alternative [double-circuit] because it would appear to minimize the footprint of environmental impacts. This would be consistent with NEPA’s requirement to minimize impacts. [LTR 008]*

Response: As discussed on pages 2-18 and 2-19 of the draft EIS, a double-circuit alternative was considered but eliminated from detailed study. This alternative would

have cost roughly twice as much as the proposed action and would not have fulfilled the stated project purpose of cost efficiency. In addition, environmental impacts associated with constructing double-circuit towers would be about the same as the proposed action. The draft EIS provides sufficient information concerning the reasons for eliminating this alternative from detailed consideration. Because NEPA requires informed decision-making and public participation rather than the minimization of impacts, Bonneville believes the information provided in the draft EIS concerning this alternative is consistent with NEPA's requirements.

Comment: *The alternatives section effectively presents one action alternative and the No Action alternative. While the EIS presents slight variations in the alignment and presents each set of changes as different alternatives, these small changes do not sharply define the issues and provide a clear basis for choice among options by the decision maker and the public as required by NEPA (see 40 CFR 1502.14). This is especially true when larger systemic alternatives exist such as demand management, distributed generation, interruptible/curtailable rates and transmission pricing solutions as well as the possible rerouting of electricity in the grid through other transmission lines. [LTR 008]*

Response: Bonneville believes the range of alternatives evaluated in detail in the draft EIS sharply defines the issues and helps provide a clear basis for choosing among the reasonable alternatives, as required by the Council on Environmental Quality NEPA regulations. In addition, the EIS provides an adequate discussion of the reasons other potential alternatives were considered but eliminated from detailed study in the EIS. Regarding the non-transmission alternatives suggested by the commenter, these alternatives were considered but eliminated from detailed study in the draft EIS because they are not feasible alternatives for addressing the need for the proposed action (see the other NEPA-related responses to comments).

Comment: *The range of alternatives is quite constrained with variations consisting of small alignment changes in four locations. Although EPA supports limiting environmental impacts by using an area that is already impacted, this does not excuse a lead agency from its NEPA responsibility of exploring a full range of alternatives. Noticeably lacking from the alternatives' analysis are options that go beyond changes in alignment such as demand management, distributed generation, interruptible/curtailable rates and transmission pricing solutions. [LTR 008]*

Response: Bonneville believes that it has adequately explored a full range of alternatives for the proposed action in the draft EIS and that the draft EIS contains an analysis of the reasonable alternatives to the proposed action. In addition to the alternatives evaluated in detail in the draft EIS, Chapter 2 of the draft EIS identifies those alternatives that were considered but eliminated from detailed study and discusses the reasons for eliminating these alternatives from further consideration. Regarding the alternatives identified by the commenter, these alternatives were considered by

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Bonneville, but were eliminated as not reasonable because they would not address the current, and especially the projected, need for additional capacity between the McNary and John Day Substations. The inability of these “non-wire” alternatives to adequately address the transmission capacity and reliability problems in this corridor is discussed on page 1-3 of the draft EIS.

The non-feasibility of these alternatives for the proposed action is also identified in a November 2001 report prepared for Bonneville entitled “Expansion of Bonneville Transmission Planning Capabilities.” (Energy and Environmental Economics, Inc. et al. 2001.) This report, which has been incorporated by reference in this EIS, was prepared for Bonneville to provide recommendations concerning how Bonneville can more effectively use its planning processes in considering transmission improvement projects such as the proposed action. This report also provided an initial preliminary screening of various transmission improvement projects (including the proposed action) to determine whether non-transmission alternatives would be viable for these projects. For the proposed action, the report found that implementation of non-transmission alternatives for the proposed transmission line was not viable because this line is necessary to interconnect the proposed generation projects, and because the expected date by when these interconnections would occur did not allow time for the development and implementation of non-transmission alternatives. The report thus is consistent with the determination that non-transmission alternatives are not reasonable alternatives for the proposed action.

Table S-2: Summary of Impacts

Comment: *Table S-2 is difficult to read because the list of impacts run together and the font is small. We recommend that the table be enlarged with the impacts bulleted and possibly broken down by resources impacted. In addition, the table lacks the no-action alternative. The table should include this alternative to compare the impacts of the action alternatives, as required by the NEPA regulations. [LTR 008]*

Response: The table has been enlarged for clarity. Regarding the No Action Alternative, the summary contains text description of the impacts of the proposed action and the No Action Alternative. Table S-2 is the summary of the impacts of the short-line alternatives, segments of the overall proposed route with alternatives to address potential impacts or technical difficulties. Comparing the No Action Alternative to the overall proposed line is more appropriate than comparing it to the short sections of line.

Affected Environment, Environmental Consequences, and Mitigation (Chapter 3)

General

Comment: *The affected environment, mitigation measures, and environmental consequences sections of the draft EIS are more characteristic of a programmatic EIS than the site-specific one required for this project with 1) broad, general descriptions of most affected resources rather than site-specific baseline and project information, 2) a conditional list of mitigation measures without an indication of their applicability, where they would be applied, or their effectiveness, and 3) a general and cursory assessment of the expected effects. [LTR 008]*

Comment: *We were surprised that the EIS presents a cursory description of the affected environment given that Bonneville has operated the corridor where the transmission line is proposed for years. The lack of information suggests that Bonneville has not historically monitored resources in the corridor. The little detailed information on resources presented in the EIS is largely derived from existing data that other agencies collected. [LTR 008]*

Comment: *The lack of site-specific project information, such as the proposed location of the transmission line towers, access roads, and staging areas also indicates that Bonneville has not conducted fundamental project surveys. [LTR 008]*

Comment: *Understandably, the lack of site specific information on resources, project elements, and mitigation measures results in an inconclusive evaluation of the environmental consequences of the project. [LTR 008]*

Response: The analysis of the proposed action in the draft EIS provides sufficient detail to allow a meaningful understanding of the impacts of the proposed action. The affected environment was identified by site-specific surveys and reviews of existing maps, literature, and other data for the proposed transmission line corridor. Potential impacts were identified based on the likely locations of the identified elements of the proposed action within the proposed corridor. Mitigation is identified with the level of specificity required by NEPA. Detailed documentation of the resources and impacts along the proposed transmission line was made during studies conducted during 2001. This documentation included literature review, the review and interpretation of aerial photographs, and field surveys. Data and resource information were presented in GIS and in a detailed resource data base. While there was some reliance on information for other studies, a majority of the detailed resource information was derived from the aquatic resource, wetlands, wildlife, cultural, visual resources, land use, and vegetation field surveys conducted during 2001. Impacts were quantified using GIS analysis. The detailed resource information will be used during preparation of the Mitigation Action

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Plan for the alignment during which time the conditional list of mitigation measures will be applied on a site-specific basis.

Please note that the Mitigation Action Plan will define the site-specific mitigation measures to be implemented based on the engineering design. The specific locations of towers, roads, staging, and other project features will be established during that design phase.

Comment: *The EIS lists numerous best management practices and mitigation measures without providing a context for them. Our enclosed detailed comments reference multiple instances where the EIS does not indicate if or where proposed mitigation measures would be implemented and the effectiveness of identified measures. [LTR 008]*

Response: Mitigation is identified with the level of specificity required by NEPA.

Comment: *Moreover, conclusions in the EIS that the proposed project's effects to resources are insignificant appear unsupported. [LTR 008]*

Response: Bonneville believes that the analysis in the draft EIS fully supports the conclusions made in the draft EIS concerning the level of significance of potential environmental effects.

Comment: *Finally, the EIS contains little discussion of the predicted cumulative impacts from the project. Consistent with the Council on Environmental Quality's guidance entitled Considering Cumulative Effects under NEPA, we recommend that the cumulative impact section be resource-based rather than project-based and that this section look at a range of impacting projects that extends beyond a sole focus on power projects. [LTR 008]*

Response: The commenter's preference for a certain methodology for conducting the cumulative analysis is noted. The draft EIS provides sufficient information concerning potential cumulative impacts to allow the decision-maker and public to understand these impacts of the proposed action. Cumulative impacts are discussed by environmental resource on pages 3-129 to 3-131 of the draft EIS. Reasonably foreseeable cumulative future development is identified on pages 3-128 to 3-129 of the draft EIS, and includes future development other than power projects.

Comment: *Additionally, in light of the little information in the EIS on the affected environment, the document should include a monitoring plan that identifies monitoring objectives (e.g., implementation of mitigation measures or effectiveness of mitigation measures), states how monitoring would be carried out and data used, and lists*

appropriate mitigation measures to employ if monitoring reveal unsatisfactory environmental effects. [LTR 008]

Comment: *EPA additionally recommends a monitoring strategy for resources that provides a feedback loop for correcting project effects deemed to be unacceptable. [LTR 008]*

Response: The draft EIS provides sufficient detail about the affected environment for the proposed transmission corridor. Information about the affected environment was identified through site-specific surveys and reviews of existing maps, literature, and other data for the proposed corridor. In addition, the potential mitigation that is identified in the draft EIS is discussed with the level of specificity required by NEPA. Bonneville has taken a hard look at possible mitigation measures and the draft EIS contains a reasonably complete discussion of mitigation measures. Because there is sufficient information in the draft EIS concerning the affected environment and potential environmental effects and mitigation measures, preparation of the type of monitoring plan suggested by the commenter is not necessary. However, Bonneville will develop a mitigation action plan that will be used during construction to ensure that all adopted mitigation measures are applied to the project.

Comment: *In conclusion, proposing to place a new transmission line in an existing transmission line corridor would appear to minimize impacts. NEPA, however, requires Bonneville to take a hard look at the elements of the proposed project including the need for the project, a full range of reasonable alternatives (including those outside the jurisdiction of the lead agency if appropriate), a site-specific discussion of mitigation measures and their effectiveness, and a sufficient discussion of the affected environment and environmental consequences so that the decision maker and public can contrast and compare alternatives. [LTR 008]*

Response: Comment noted. Please see the previous responses regarding the need for the proposed action, alternatives to the proposed action, and the adequacy of the affected environment, environmental consequences, and mitigation measure discussions in the EIS.

Comment: *BLM has not yet received specific resource inventory reports for archaeology and vegetation surveys (including both rare plants and noxious weeds). From the discussion in the DEIS, it appears that not all of the inventories have been completed. These reports are necessary to adequately assess impacts of the project. Without them, both the affected environment and environmental consequences sections of Chapter 3 are incomplete....prior to writing the final EIS, these inventories must be completed and the reports provided to BLM for review. The BLM also needs to receive copies of any Biological Assessment(s) prepared for the project. [LTR 007]*

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Response: The Cultural Resources Technical Report, which has details regarding impacts and mitigations measures for cultural resources, has been sent to the affected Tribes, Federal land managing agencies along the line, and the State Historic Preservation Officers for review and comment before being finalized.

Information regarding vegetation along the line is provided within the draft EIS; there are no further reports. The final EIS has been updated to include information due to additional surveys conducted this spring.

Bonneville will provide you with a copy of the Biological Assessment.

Land Use and Recreation

Comment: *The DEIS maps are small in scale, it is hard to determine for sure which [BLM] tracts would be affected by the new transmission line...In order to permit meaningful review of the proposal, higher detail maps need to be included in the document or provided directly to BLM. The maps should clearly show the BLM and COE tracts potentially affected by the...project. We recommend that these maps have a scale of 1:50,000 or better...include contour lines, proposed tower and access road locations, if possible. [LTR 007]*

Response: Bonneville believes that the maps provided in the EIS, along with the written analysis, provide sufficient information to allow an understanding and meaningful review of the proposed action. Regarding the BLM tracts specifically, Bonneville will meet with BLM staff to provide detailed maps and discuss the proposed project and the easements that would be required.

Comment: *State is going to give up lease on Maryhill & Crow Butte Parks. [PS]*

Response: As of October 1, 2001, the U.S. Army Corps of Engineers holds the lease on Crow Butte State Park. The state currently holds the lease on the Maryhill Park.

Comment: *We're going to lose a lot of access if they're located where they are proposed at "Sundale Orchards". [RS]*

Response: In a meeting with the landowner, the access road system in this location was adjusted to coincide with the existing road system through the orchard, with some widening at the corners. Some trees would have to be removed at the corner locations due to the widening, but not as many trees would need to be removed compared to the original road plan. Thank you for working with us.

Comment: *If Bonneville goes through the orchard I'll have to take out trellises and trees. (Sundale Orchards) [RS]*

Response: Yes, as described in the impact analysis, some windbreak trees would have to be removed so that there is adequate clearance for the transmission lines. In some cases, orchard trees and vineyard trellises would also have to be removed for tower locations and access.

Comment: *Can towers be shifted to get them out of the orchards? [RS]*

Comment: *A jog of 50-75 feet at towers 54/2 and 54/3 would solve problem of having to remove trees. [PS]*

Response: There is some flexibility in locating towers. Bonneville's goal would be to locate towers with the least impact possible. Additional coordination with landowners with orchards, vineyards, and irrigation circles would occur after preliminary tower design/locations has been prepared. Towers can often be moved some distance ahead or back along the centerline of the route, but tower moving can result in additional tower heights and costs. It is difficult to move towers to either side from the centerline. Jogging the line to the north of the centerline would require up to two dead-end structures and two angle structures, which would increase the costs of a single location significantly.

Comment: *Don't want concrete trucks to show up during harvest! [RS]*

Comment: *Harvest during 2nd week of August, and 2nd week of November, working on trees in December. [RS]*

Comment: *Wheat harvest is from July 1st - 20th, and we plant from September 10th through November 1st. [RS]*

Comment: *Harvest is in September - October for Alder Ridge. [RS]*

Comment: *We harvest in May (alfalfa) and generally cut again at the end of June. (sheet 68) [RS]*

Response: Bonneville would make every effort to work with individual landowners to schedule construction activities to minimize conflicts with farming activities to the extent possible. If conflicts occur, these will be handled on a case-by-case basis.

Comment: *Plans to expand orchards on either side, but permits with Department of Ecology are difficult. [RS]*

Response: Comment noted.

Comment: *We use the barn owned by Goldendale Aluminum Company for hay. [RS]*

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Response: Thank you for the information. Bonneville will take it into consideration when selecting an alternative at the Hanford-John Day Junction.

Comment: *Trees become severely damaged by wind, when poplars are cut fruit gets damaged. Used to have a limit of 16 ft. But the natural resource specialist allowed us to grow to 20 feet, that helps. [RS]*

Response: The heights of trees under and along the line can vary depending on how close they are to the corridor and to the belly of the conductor. The Bonneville Natural Resource Specialist in your area (Bill Erickson 509-527-6249) can work with you to determine appropriate safe heights of your wind break trees after the proposed line is in place.

Comment: *Gates with livestock are inadvertently left open. The clock will start the minute I stop my work to remedy the situation in taking care of my cattle, due to gates being left open. [RS]*

Response: Thank you for the reminder. During the construction phase, Bonneville intends to replace many of the broken and barbed wire gates along the transmission line right-of-way with metal swing gates. The new gates will be easier to operate and to keep closed. We have reminded our survey crews and will give specific instructions to our construction contractors to close gates behind them. Property owners can help by placing a sign on the gate indicating that there is livestock present. This will help remind people that they are in a rangeland area.

Comment: *EIS states, No "Prime Farmland", although there may be much in this area, there is some good irrigated farmland. -- Sundale Orchards [RS]*

Response: Prime farmland is a Federal designation based on soil type and other criteria. There is good farming land along the proposed route, although it does not meet the prime farmland criteria.

Comment: *Perhaps you can place taller towers so that you can span the irrigated farmland? [RS]*

Response: Bonneville would work to span irrigation circles where possible. In some cases taller towers would help. Please see the discussion on working with landowners and spans of towers.

Comment: *M-BE-AR-54-1, Need to reroute road around orchard, rather than through it. [RS]*

Response: The access road location as shown on the photomaps is not correct. It does go around the orchard to the east.

Comment: *Registered block where we can grow certified plants. (i.e., disease free, etc.) near tower 33/1 [RS]*

Response: Thank you. Bonneville will take this information into consideration.

Comment: *Irrigation at 33/1 drip system (permanent – doesn't move around). [RS]*

Response: Thank you. Bonneville will take this information into consideration.

Comment: *We spoke with Bill Erickson at Bonneville about wind machines on our property. (near 33/1) [RS]*

Response: Comment noted.

Comment: *The proposed 79 mi long 500 kV transmission line is to be constructed mostly in existing right-of-way. The proposed alternatives in the draft EIS do not appear to have the potential to negatively affect Bureau of Reclamation projects or facilities. [E-M 003]*

Response: Thank you for your review and comment.

Comment: *S-9 identifies the following mitigation measures: coordinate with landowners for farm operations, including plowing, crop dusting, and harvesting. It is presumed that this mitigation measure would minimize airborne pollutants, however, timing these activities could also minimize spikes in non-point source water pollution. The EIS should indicate the resource or resources that this measure is helping to protect. [LTR 008]*

Response: Mitigation measures listed on page S-9 relate to land use and recreation activities, not to non-point air pollution.

Comment: *Page 3-2 lists the following locations without explaining their nomenclature: 6/1, 7/2 10/4...The EIS, preferably in a sidebar, should explain the basis of this nomenclature or include a map of towers identified by this nomenclature. [LTR 008]*

Response: The nomenclature is described on page 2-2. Bonneville intended to reiterate the description at the beginning of Chapter 3, but it was left out, we apologize for the omission.

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Comment: *Pages 3-6 and 3-7 states that Umatilla County's zoning designation for the project corridor is F1, Exclusive Farm Use. A noncommercial utility facility is permitted outright in the F1, Exclusive Farm Use zone, and the proposed action thus would not be inconsistent with this designation. The EIS should define a noncommercial utility facility in this context. A transmission facility seemingly appears more of a commercial use than a residential or farm use. [LTR 008]*

Response: A transmission line is permitted outright in the F1, Exclusive Farm Use Zone in Umatilla County. The F1 Exclusive Farm Use Zone permits utility facilities necessary for public service except commercial facilities for the purpose of generating power for public use by sale (Section 3.012(5)). Because a transmission line transports power and does not generate power, it is considered a permitted use (Perry pers. comm.).

Comment: *Concerned about interfering with plans for a home overlooking the Columbia River. [PH 005]*

Response: As discussed in a telephone conversation between the Bonneville engineer and the landowner, the transmission line in this area (Oregon, near the John Day Substation) would be within an existing corridor with transmission lines on either side of it and would not disrupt plans for the home.

Comment: *Would like to know if the wind machines will have to moved from were they are currently located. (south of the existing corridor) [PH 006]*

Response: As Bonneville has discussed with the landowner/commenter, one wind machine would have to be relocated. If Corridor Mile 32, Alternative B (move corridor off Tribal allotment) is selected, then additional wind machines would have to be moved.

Comment: *I have found a Bonneville employee with a hunting rifle and in a Bonneville truck on the easement area on my property in the past. I complained to the office with little result. What is Bonneville's policy concerning employees or contractors carrying guns on private property? [PH 009]*

Response: Bonneville's policy strictly forbids employees or the contractors from carrying weapons in their vehicles. Please notify Bonneville immediately if this happens again. For your area, please contact Mary Oakland at our Redmond District, (541) 548-4015.

Geology, Soils, and Seismicity

Comment: *What are we doing at 66/1? It's real steep there. [RS]*

Response: Bonneville is looking into routing the proposed line on top of the bluff and spanning JU Canyon to get off the steep slope.

Comment: *You'd have a pretty long span at 66/1 because it is so steep there. [RS]*

Response: Yes, the JU Canyon span will be long. However, it is easier to have long spans over canyons than on flat land because the canyon allows room for the belly of the conductor sag.

Comment: *S-11 [and 3-17] contains the following mitigation measure: avoid construction on steep slopes where possible. The EIS should define steep slopes, identify where steep slopes occur in the project area, and where construction on steep slopes could and could not be avoided. [LTR 008]*

Response: Steep slopes are defined as slopes exceeding 45%. Areas with steep slopes are found in the southern half (Klickitat and Sherman Counties portion) of the corridor. Site-specific mitigation measures for construction on steep slopes will be addressed in the Mitigation Action Plan.

Comment: *S-11 [and 3-17] contains the following mitigation measure: install appropriate roadway drainage to control and disperse runoff. The EIS should identify specific locations in the project area needing roadway drainage structures and the appropriate drainage structure(s) for each site. [LTR 008]*

Response: Site-specific mitigation measures relating to roadway drainage will be addressed in the Mitigation Action Plan.

Comment: *Pages S-11 and 3-17 contains the following mitigation measure: develop additional mitigation measures (using a certified engineer) between corridor miles 39 and 41 due to the presence of an active landslide in the vicinity of tower 40/3. The EIS should identify specific mitigation measures. A certified engineer should evaluate the active landslide area prior to completing the EIS and appropriate mitigation measures should be included in the EIS for the public and decision-maker to review. The EIS should identify appropriate site-specific mitigation measures...[and] predict the effectiveness of the mitigation measures, and predict the risks of mass movement and erosion with project implementation (including mitigation measures). [LTR 008]*

Response: The area has been reviewed by a certified engineer and the text has been updated on page 3-15 and new mitigation measures added to page 3-17.

Comment: *Page 3-16 states that erosion rates would most likely return to their current level following construction if plants reestablished along the corridor, naturally, or through revegetation. The EIS should predict the time it would take for plants to reestablish themselves to the extent that erosion rates would return to natural levels, the level of soil loss in the interim, differences between existing vegetation and recolonizing*

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vegetation, and potential mitigation measures including replanting disturbed areas and their effectiveness. [LTR 008]

Response: A time frame for the reestablishment of plants will be influenced by the species of plants and the season in which construction takes place. Regardless of the construction season, any disturbed areas would be mulched immediately with weed-free straw and reseeded as soon as practical along with the use of other measures to reduce erosion. Appropriate erosion measures would be developed through the Storm Water Pollution Prevention Plan. It is very difficult to predict erosion rate; however, mulch stabilization will minimize interim soil loss. Reseeding would be with native grasses and forbs (where possible and appropriate and with recommendations from the county) and there would be little difference between plant types, except a reduction in noxious weeds. Mitigation goals including performance standards will be addressed in the Mitigation Action Plan.

Comment: *Page 3-17 states that no unavoidable or adverse impacts to geology or soils are expected to remain following completion of the project if the mitigation measures and best management practices listed earlier are implemented. This conclusion appears unsupported since the EIS has not indicated if or where, and in some instances, what mitigation measures and best management practices would be implemented and the expected effectiveness of such actions. [LTR 008]*

Response: The mitigation measures and best management practices listed in the draft EIS include accepted methods to minimize and negate impacts. The mitigation measures and best management practices to be implemented will be determined based on the site-specific effectiveness of a given method. Site-specific mitigation measures related to the construction of the project will be addressed in the Mitigation Action Plan.

Streams, Rivers, and Fish

Comment: *Are you getting Corps permits for creek near Mercer Ranch? [PS]*

Comment: *Corps considered permits for Glade Creek. (water of the state) [PS]*

Response: No fill impacts to waters of the United States would occur at Glade Creek or Dead Canyon. Therefore, no Section 404 or 401 permits would be required by the U.S. Army Corps of Engineers or the Washington State Department of Ecology for activities at this location.

Comment: *[regarding fish-bearing streams temperatures]... the EIS should state what temperatures were measured. In addition, the EIS should also identify measures that Bonneville is using or could use to mitigate the impacts of high temperatures in these streams. [LTR 008]*

Response: The temperature of the water was measured in streams that had flowing water along the project corridor. The elevated temperature of these streams is a natural condition of the climate, exposure, and geologic conditions. The temperature is not affected by the current Bonneville transmission line alignment and would not be affected by the installation of the proposed new corridor line; the lines (existing and proposed) do not require riparian shade vegetation to be removed.

Comment: *Page S-12 states that several common construction materials and petroleum products could be toxic to fish and other aquatic organisms if spilled into or near streams. A Spill Prevention and Contingency Plan should be included in the EIS and should state the spill risk, identify sources of toxic materials and environmental resources at risk, and mitigation measures. [LTR 008]*

Comment: *The EIS should contain the Spill Prevention and Contingency Plan and the environmental consequences section should predict the number and extent of hazardous material spills and impacts of these spills with implementation of the Plan. [LTR 008]*

Response: The Spill Prevention and Contingency Plan will be developed in association with the Mitigation Action Plan. The construction of the line would not require the use of large quantities of hazardous materials (use of fuels and oils in the operation of heavy machinery). Any spills or leaks would be minor, accidental and not predictable. The Spill Prevention and Contingency Plan will include provisions for the storage of hazardous materials, the refueling of construction equipment, a spill containment and recovery plan, and notification protocols.

Comment: *The EIS should describe critical habitat for all listed species, the ESA process including Section 7 consultation, the consultation timeline, and a summary of biological assessments, especially conclusions about the likelihood of the proposed project adversely affecting listed species. [LTR 008]*

Response: Chapter 4 of the draft EIS provides information on the ESA process. Page 4-2 of the EIS has been updated to further address the Biological Assessment. Impacts to species and habitats are addressed in Chapter 3 in the sections Streams, Rivers, and Fish; Vegetation; and Wildlife.

Comment: *Page 3-21 states that since steelhead trout are a federally listed species and their distribution overlaps with both chinook and coho, the analyses of current conditions and potential impacts to this species also serve to describe all potential impacts to EFH. The EIS does not support this statement. The document should show life history and habitat similarities as well as similarities between the purposes of ESA and EFH before making this statement.*

Response: Revisions and additions have been made to page 3-21 of the draft EIS.

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Comment: *Page 3-23 generally discusses how the project could impact fish habitat through the transport of sediment and the removal of riparian habitat. The EIS talks about impacts such as how increases in sediment in low-velocity stream reaches can cover suitable spawning gravel, cause channel braiding, increase width:depth ratios, increase incidence and severity of bank erosion, reduce pool volume and frequency, and increase subsurface flow. The EIS does not state, however, to what extent these are problems in the project area or to what extent these would be problems with project implementation. The EIS should state this and support these conclusions with measurements of stream health including the parameters listed above and the amount of large woody debris and riparian vegetation. This information is especially important in streams identified as water quality impaired and containing sensitive and listed fish species. [LTR 008]*

Response: As discussed on pages 3-23 and 3-24 of the draft EIS, the potential impacts of construction near streams is sedimentation. With the design of the project (spanning streams and not cutting riparian vegetation) and erosion control measures, the potential of sedimentation impacts to fish bearing, or potentially fish bearing waters would be minimized. To the east of Wood Gulch, streams typically have degraded riparian vegetation consisting of sagebrush and grasses, no large woody debris (LWD) recruitment potential and direct livestock access to the stream channel. Sedimentation is also more prevalent to the east of Wood Gulch due to degradation of the stream channel and stream banks associated with the livestock grazing.

To the west of Wood Gulch, riparian vegetation consisting of trees and larger shrubs are more common, degradation of stream channels and stream banks from livestock access is not as prevalent, LWD recruitment is greater, and sedimentation is not as prevalent.

Comment: *Page 3-24 states that if areas cleared for tower footings were reseeded or naturally revegetated after construction, the potential for erosion and sedimentation would be less than if left as bare soil. The EIS should identify the location and the type and extent of reseeded and revegetating, and predict the reduced erosion and sedimentation for those sites. [LTR 008]*

Response: Comment noted. Reseeding and revegetation of bare-soil disturbed areas will occur where appropriate to mitigate for potential soil erosion. In addition to reseeded and revegetation efforts, erosion control methods such as silt fences and straw mulch will be used during construction to minimize the transport of sediments to adjacent surface waters via runoff. Implementation of the Stormwater Pollution Prevention Plan (to be developed during the drafting of the Mitigation Action Plan) will greatly reduce soil erosion and the potential impacts from the transportation of fines.

Comment: *Pages 3-24 and 3-25 describe numerous potential measures to mitigate construction impacts. For example, blasting should be avoided within 200 feet of fish-bearing streams or the road gradient should be 0%. The EIS should state proposed*

mitigation measures, describe where they would be implemented, and predict their effectiveness. The ROD should contain final commitments to implement such mitigation measures. [LTR 008]

Response: Revisions have been made to the EIS to make sure the mitigation measures mentioned in the text are also on Bonneville's list of mitigation measures. Because design of the project (exact tower sites and roads) is preliminarily, the EIS does not state the mitigation based on exact sites, but as measures to be implemented in the given situation. For example, the measure that road gradients should be 0% when crossing dry washes, because Bonneville does not yet know all the exact dry washes that would be crossed, will be applied across the board; whenever a dry wash would be crossed by a road, the gradient would be 0%. Many mitigation measures are designed to avoid impacts (rather than lessen them), and therefore predicting their effectiveness is not relevant. Many of the mitigation measures designed to lessen potential impacts are based on Best Management Practices and would be monitored in the field to ensure that they are effective (i.e., erosion control measures). The Record of Decision will contain final commitments to implement mitigation measures.

Revisions and additions have been made to the bulleted list of mitigation measures on page 3-28.

Comment: *The EIS should state the overall condition of roads in the project area, problem areas in the road system, impacts from the problem areas, and the length of time to fix road problems. [LTR 008]*

Response: The existing access road system supporting the corridor of transmission lines would be used to construct the proposed McNary-John Day transmission line. The existing road system is generally in good condition and is not causing impacts. Specific road reconstruction and new access road construction would be part of the overall construction schedule.

Comment: *Page 3-35 describes potential impacts arising from the operation and maintenance of the proposed line due to the use of access roads for tower maintenance and vegetation clearing within the transmission line corridor. The EIS should describe what additional noxious weed control would be required due to areas being disturbed and the impact to water quality, vegetation, and wetland functions from pesticides entering wetland systems. [LTR 008]*

Response: Chapter 3, pages 3-37 thru 3-52 of the draft EIS describes the existing noxious weeds along the project corridor, the potential impacts of further weed invasion and mitigation measures to help prevent the spread of weeds. Noxious weed control activities are part of Bonneville's Transmission System Vegetation Management Program, an approved set of management actions designed for controlling vegetation as part of Bonneville's maintenance activities. The program focuses on an integrated

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vegetation management strategy that uses a number of methods for controlling vegetation, including noxious weeds. The reseeding effort after this project would be part of that strategy to help prevent the intrusion of noxious weeds. Other control methods that Bonneville uses include manual (pulling individual species in areas of low density), mechanical (mowing weeds prior to flowering), biological controls (the release of certified insects or fungus that stresses target species), and the use of herbicides. The potential impacts of the use of these methods are analyzed in the Transmission System Vegetation Management Program Final EIS (May 2000) for use across Bonneville's system. Tiered environmental analyses for site-specific vegetation control activities are conducted to determine appropriate methods and mitigation measures to be applied to particular site conditions. Because Bonneville has already analyzed the potential impacts of the vegetation control methods we would use, determined appropriate mitigation measures, and has a process for site-specific analysis, it would be repetitive to describe that information in this EIS. The entire plan—including all potential noxious weed control methods, their impacts, and appropriate mitigation—is incorporated by reference into this final EIS.

Comment: *We noted a discrepancy between the width of disturbance expected on the access roads for the transmission line. On page 2-7 under the "Access" heading, it says that a "20-foot-wide total area" would be disturbed; on page 3-25, under "Access Roads," it says the approximate impact area would be 25 feet wide. [LTR 007]*

Response: Revisions have been made to both pages 2-7 and 3-25 of the draft EIS.

Comment: *Page S-13 contains the following mitigation measure: place towers outside of stream riparian areas and utilize natural landscape features to space the conductor over existing shrub and tree riparian zones and avoid cutting. The EIS should identify areas where proposed towers would need to be set in new locations to avoid stream riparian areas and to utilize natural landscape features to space the conductor over shrub and tree riparian zones and avoid cutting. [LTR 008]*

Response: The location of towers would be determined as the line is designed. This mitigation measure would be taken into account so that the towers would be located such that riparian vegetation would not be affected. The topography between the McNary and John Day Dams is such that new towers for the proposed new transmission line corridor could be located on ridge tops and thus avoid the issue of having to remove any riparian vegetation.

Comment: *Page S-13 contains the following mitigation measure: avoid tower or access road construction on potentially unstable slopes where feasible. The EIS should identify these areas. [LTR 008]*

Response: Those areas that may contain potentially unstable slopes are located almost exclusively to the west of Wood Gulch on the Washington side of the corridor. The slopes are steeper and signs of past episodes of erosion are evident in various areas along this portion of the proposed corridor.

Comment: *The EIS should identify dry wash crossings needing water and sediment control devices and the appropriate water and sediment control device for each site. [LTR 008]*

Response: Sediment control devices would be installed at all dry washes that require road work. Devices would include silt curtains and weed-free hay bales. Dry washes occur exclusively to the west of Wood Gulch Creek. The majority of these dry washes flow off of steep hill slopes only to dissipate upon reaching a flat area and go subsurface or pond up prior to entering a fish bearing, or potential fish bearing water. It is recommended that access roads that cross dry washes do not have culverts installed, but instead are simple wet crossings. This would avoid maintenance issues associated with culverts.

Mitigation for specific dry wash crossings will be more fully developed and addressed in the Mitigation Action Plan.

Comment: *We also support the use of existing water crossing structures whenever possible to avoid the need for new structures. [LTR 011]*

Comment: *The EIS should identify places where culverts would be installed, state the appropriate culvert size, and list mitigation measures to be used during installation. [LTR 008]*

Response: We are utilizing the existing access road system as much as possible and no new water crossing structures would be needed in fish bearing streams. However, two existing culverts would need to be replaced and four new culverts installed. All culvert work would be done in non-fish bearing streams or drainages. Approximately twenty-four ford-type crossings would need to be constructed in wetland and drywash road crossings. All new culverts will be designed using Washington Department of Fish and Wildlife culvert design and installation guidelines.

Sediment control devices would be installed at all dry washes that require road work. Devices would include silt curtains and weed-free hay bales. Dry washes occur exclusively to the west of Wood Gulch Creek. The majority of these dry washes flow off of steep hill slopes only to dissipate upon reaching a flat area and go subsurface or pond up prior to entering a fish bearing, or potential fish bearing water. It is recommended that access roads that cross dry washes do not have culverts installed, but instead are simple wet crossings. This would avoid maintenance issues associated with culverts.

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Mitigation for specific to each culvert or dry-wash crossings will be more fully developed and addressed in the Mitigation Action Plan.

Comment: *The EIS should contain maps identifying the proposed locations of roads and staging demonstrating that they lay outside waters of the United States. [LTR 008]*

Response: No staging areas would be located within waters of the United States. There are approximately 24 locations where new access roads would cross waters of the United States where avoidance is not possible. The acreages of these crossings will be determined during Section 404 and 401 permitting as required for this project and in the Mitigation Action Plan.

Comment: *The draft Environmental Impact Statement indicates that there will be several stream crossings associated with both the new and the improved access roads proposed throughout the project. Hydraulic Project Approvals will be required for installation and maintenance of all proposed water crossing structures. There is insufficient information in the DEIS to determine if additional mitigation will be necessary for these projects, especially with regard to the 11 fish bearing streams which will be crossed by access roads. [LTR 011]*

Response: The 11 fish bearing streams would not have new stream crossing features installed. Crossing of these streams would continue on existing access roads, none of which are owned or maintained by Bonneville, such as SR 14. New access roads would only cross at non-fish bearing water. Mitigation measures would be adequate to ensure that fish and fish habitat would be minimally and temporarily affected by construction activities of the proposed project.

Comment: *We concur with the recommended mitigation measures within the DEIS that all towers are placed at least 200 feet from the ordinary high waterline of fish bearing streams. [LTR 011]*

Response: Thank you for your comment. Preliminary designs indicate that the project would be able to abide by this measure.

Comment: *The recommended application of BMPs within the DEIS for road construction and maintenance should be implemented to avoid sedimentation of fish bearing waters. [LTR 011]*

Response: Thank you for your concurrence on the BMPs; Bonneville plans to implement them.

Comment: *It appears from the general description of the project, that a Hydraulic Project Approval (HPA); Chapter 77.55 RCW, WAC 220-110) to be issued by WDFW, will be required for the project. [LTR 011]*

Comment: *There is insufficient project detail to determine specific conditions or mitigation to be placed on the project at this stage of the project development. We encourage you to seek involvement from WDFW on resource needs and typical project requirements to insure proper protection of fish life as you proceed with project design and development. Early involvement with WDFW will facilitate later processing of the HPA. Once final design plans are available, please submit a completed Joint Aquatic Resource Permits Application (JARPA) for a Hydraulic Project Approval (HPA), including complete plans and specifications, to WDFW for review. [LTR 011]*

Comment: *The plans and specifications should be developed relative to the ordinary high water line. The drawings should accurately depict existing conditions including all prominent natural features and manmade improvements in the water and on the bank in the immediate vicinity of the project area. They should include plan and cross-sectional views of the proposed project, a vicinity map of the project area, and accurate directions to the project site. In addition, to aid us in locating the project site, a photograph should be supplied. [LTR 011]*

Response: There are several small non-fish-bearing water bodies that would be crossed by the access roads in which a Joint Aquatic Resources Permit Application (JARPA) for a Hydraulic Project Approval (HPA) would be submitted. Thank you for detailing the information that would be needed; Bonneville will include it in the permit.

Wetlands and Groundwater

Comment: *The flats have lots of water during wet winters, lots of rocks and rattlesnakes. (see sheets 68-72 ~ soggy rather than flooded) [PS]*

Response: Thank you for your comment. Several wetland features were inventoried within the area between corridor miles 60 and 72.

Comment: *S-9 describes cropland, grazing, and upland areas impacted by the project. The EIS should also state the acres of wetlands impacted by action alternatives. [LTR 008]*

Response: Potential wetland impacts are described in the Wetlands and Groundwater section of Chapter 3.

Comment: *Pages 3-30 and 3-31 contains site-specific information about wetlands. The EIS should contain this level of information about other resources. A map of wetland*

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resources in the project area would help the reader understand the location and extent of this resource. [LTR 008]

Response: Site specific information is provided for each of the natural resources evaluated within the draft EIS. The locations of all wetlands identified during field surveys of the project right-of-way are presented in Figure 3-2.

Comment: *Page 3-32 states that the construction of new access roads in association with the Hanford-John Day Alternatives B and C would potentially fill 0.1 acre of emergent wetlands. The EIS should describe the Clean Water Act Section 404 permitting process for this fill activity. [LTR 008]*

Response: Please refer to Chapter 4, Consultation, Review, and Permit Requirements of the draft EIS for a complete description of the Clean Water Act Section 404 permitting process.

Comment: *We recommend that the EIS contain actions that compensate for the 0.1 acre filling, the removal of wetland buffer vegetation, and construction activities. [LTR 008]*

Response: The appropriate level of mitigation for impacts to wetlands and their regulated buffers will be determined through Section 404 and 401 and local permit conditions for wetlands protection and impacts compensation.

Comment: *Page 3-34 states that erosion in areas of soil disturbance and vegetation removal could result in increased groundwater turbidity. The EIS should inform the reader of what areas are at risk, the level of that risk, possible levels of turbidity, and whether these levels are significant. [LTR 008]*

Response: Please refer to the paragraph immediately following Table 3-9 for a complete description of the potential impacts to groundwater from increased turbidity following soil disturbance and vegetation removal.

Comment: *Page 3-37 could include two additional mitigation measures at the site level (with estimates of effectiveness). These are to avoid using pesticides around wetlands and to pull weeds (i.e., mechanical control) prior to them developing seed heads. [LTR 008]*

Response: Control of noxious weeds and the use of appropriate mitigation measures for herbicide use within the transmission line corridor will be guided by Bonneville's Transmission System Vegetation Management Program.

Comment: *Although the DEIS identifies wetlands within the project route, there appears to be insufficient information to determine to what extent they will be affected by the project. The proposed access roads and other associated structures should be located to avoid impacts to these wetlands. In instances where structures must be placed within or near wetlands, delineations should be completed to determine mitigation requirements. [LTR 011]*

Response: Towers and roads would be located to avoid impacts to wetlands where possible. Unavoidable wetland impacts would total less than 1.0 acre of the 45 total acres of wetlands surveyed within the project area. Wetland delineations will be conducted prior to construction for Section 404 and 401 permitting purposes the using the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the 1997 Washington State Wetlands Identification and Delineation Manual.

Vegetation

Comment: *I'm assuming the weed board will follow up on noxious weeds? [RS]*

Response: Bonneville is working with the weeds boards for noxious weed control.

Comment: *I also understand that you'll evaluate weeds after construction. [RS]*

Response: Bonneville would conduct a weed survey a couple of growing seasons after construction to identify whether any mitigation measures need to be taken to control the weeds as a result of Bonneville's construction.

Comment: *The Washington Natural Heritage Program has reviewed the draft EIS for the McNary-John Day Transmission Line Project, and we have found serious deficiencies in the Special Status plants portions of the document (pgs. 3-40 and 3-41) [LTR 001]*

Comment: *The July survey time is inappropriate for ALL of the potential species in the project area. Northern wormwood is identifiable in late April and early May. Ute ladies' tresses is identifiable in late July through September, but one July survey is not enough to rule out the possibility of the presence of the species (see section 7 guidelines for Ute ladies' tresses). All of the state sensitive species are identifiable from late April through early June at the latest. In other words, none of these special status plants would be found during a July survey, so asserting that "neither species was found during field surveys" is not biologically significant. [LTR 001]*

Comment: *Although [Ute ladies tresses, northern wormwood, pauper's milk-vetch, Snake River cryptantha, and Piper's daisy] are potentially present in the project area, the field survey was conducted at an inappropriate time of the year. The July 2001 survey period reported in the DEIS is not a proper time to search for the plants listed above. Ute ladies'-tresses flowers in August through September, and technical*

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characters of the flower are needed for identification. Northern wormwood flowers in April, and the involucre (structures surrounding the flowers) are important in distinguishing it from related members of the same genus. Pauper's milk-vetch flowers from April to mid May, and the WNHP Rare Plant Guide states that "by late June all fruits are mature and plants fall into dormancy." Snake River cryptantha blooms in May and June, and flowers would not be present in July, although the plant may be recognizable in July by someone who is familiar with its appearance. Piper's daisy flowers in May and possibly into June, but...aboveground structures could have dried up by July... [LTR 07]

Comment: *Lomatium laevigatum* (smooth desert parsley) also occurs within 1/4 mile of the transmission line corridor, and was not included in the surveys. [LTR 001]

Comment: *This portion of the Columbia River is one of the most diverse areas in the state, with high potential for rare plant populations. Our recommendation would be to reject the findings for special-status plants altogether, and to require another survey, with, at a minimum, the following methodology:*

- a) The development of a thorough list of potential species*
- b). Surveys undertaken by qualified Botanists with experience in eastern Washington rare plant surveys*
- c). Section 7 guidelines for Ute ladies' tresses followed properly*
- d). Surveys undertaken at the proper time of the season for each potential rare plant species, which may require more than one survey in selected sections of the project area*
- e). Surveys completed for all portions of the project area that still support native vegetation*
- f). A full species list compiled for the project area, and a full description of survey methodology included in the final EIS. [LTR 001]*

Comment: *Did a qualified Botanist conduct the survey? [LTR 001]*

Comment: *Was a full species list compiled? [LTR 001]*

Comment: *There is significant discussions of methods in this section. Was the entire project area surveyed, or just the areas with potential for the species above. On what specific days in July did surveys take place? Survey dates are significant for rare plant surveys. [LTR 001]*

Comment: *To provide better understanding, the EIS could provide a table listing potential special status plants species, their habitats, and appropriate timing for field observation. G262 [LTR 007]*

Response: A qualified botanist with experience in eastern Washington plant communities, with degrees in ecology and botany, and over 14 years experience in vegetation inventory conducted general vegetation surveys in July 2001, of the entire

project area. Additional focus was placed on areas with higher potential for sensitive plant species, as described in the existing literature.

Additional field surveys for Special Status plants within and adjacent to the McNary-John Day Transmission Line Project, are being conducted with timing more appropriate to the peak flowering periods for these species. The list of target species for these additional surveys was based on existing literature, including the Washington Natural Heritage Program database and additional recognized references. The additional surveys cover all portions of the project area that are dominated by native vegetation, as well as moderately-disturbed shrub-steppe areas.

Additional field surveys for northern wormwood were conducted on April 18 and 19, 2002. Additional field surveys for state sensitive species, including *Lomatium laevigatum* (smooth desert parsley), were conducted May 28-30, 2002. Additional field surveys for Ute ladies' tresses will be conducted in late August 2002, following Section 7 guidelines. The timing of the additional surveys has been coordinated with a representative of the Washington Department of Natural Resources, and is appropriate for the target species. Pages 3-40 and 3-41 have been updated to include information from the additional surveys.

A full species list for the entire project was not compiled. A complete list of sensitive plant species, indicating flowering periods and preferred habitat, was prepared as part of the background research prior to field surveys. This list was based on information obtained from U.S. Fish & Wildlife Service and the Washington Natural Heritage Program database for Klickitat and Benton Counties. It was not included in the EIS.

A technical memorandum on Special Status plant species will be developed for Washington Department of Natural Resources that will include a full species list and survey methodology.

Comment: *We do not identify "potential habitat" for state sensitive species. We do identify known populations, and it appears that there are known populations in our database of both Pauper's milkvetch and Snake River cryptantha from the project corridor. The language is misleading and inaccurate. [LTR 001]*

Response: The use of the term "potential habitat" was intended as a reference to WNHP-identified known locations of the two species mentioned. It was not intended as a reference to an agency-approved cover type or standardized definition. The commenter is correct in noting that WNHP does not designate potential habitat. The term has been removed, and the language in the draft EIS has been clarified.

The term "potential habitat" on pages 3-40 and 3-41 of the draft EIS has been removed and the paragraph clarified.

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Comment: *The EIS states that vegetation would be maintained along the line for safe operation and to allow access to the line. The EIS should summarize direction provided by the earlier Bonneville Vegetation Management EIS and apply that direction to the proposed transmission line. The EIS should summarize direction provided by the earlier Bonneville Vegetation Management EIS and apply that direction to the proposed transmission line. Specifically, the EIS should include a weed control management plan that utilizes Integrated Pest Management (IPM). EPA supports using manual, cultural, and biological alternatives over pesticides when possible because of the potential problems from the fate and transport of pesticides in the environment. [LTR 008]*

Comment: *Page S-9 does not describe how Bonneville would control weeds around the base of the towers. The EIS should contain this information. [LTR 008]*

Response: Pages 2-10 and 2-11 of the draft EIS describe Bonneville's Vegetation Management Program EIS and how it would apply to the proposed transmission line. As described in the Vegetation Management Program EIS, Bonneville works with weed boards and landowners in coordination with area-wide plans for noxious weed control. Because it works with the other entities on noxious weed control, and it plans vegetation management activities tiered to its Vegetation Management Program EIS, Bonneville does not think it is appropriate to include a weed management plan in this EIS.

Comment: *I am concerned with noxious weeds on my easement, especially star thistle. Does Bonneville have a policy that states "Will Bonneville keep the easement free from noxious weeds"? [PH 009]*

Response: Bonneville works with the county weed boards, which have area-wide programs for noxious weed control including roadside weeds and overall weed issues in an area.

Comment: *The EIS should identify existing projects in the area that aim to restore or protect native plant communities and cryptogamic crusts, including those receiving Bonneville funding. If none exist, Bonneville should consider incorporating the restoration of native plant communities and cryptogamic crusts into the project design. [LTR 008]*

Response: Recommended mitigation actions discussed on page 3-52 of the EIS include reseeding areas temporarily disturbed in higher quality shrub-steppe with native grasses and forbs (if recommended by the local county), and salvaging topsoil and bunchgrass plant material. Reseeding would occur during the appropriate planting season. All disturbed areas would be reseeded with seeds of native plant species recommended by the local county. Details of revegetation of native plant communities and cryptogamic crusts will be incorporated into the Mitigation Action Plan for the project.

Revisions have been made to page 3-52, bullet item 9.

Comment: *Appendix C (Common and Scientific names of Plants in Study Corridor) is confusing. The DEIS states that none of the plant species listed above were found in the surveys, yet all five of these plants are included in the list in the appendix. The confusion might be clarified by changing the title of the appendix to reflect what the list of plants actually represents (ex. List of Plants That Could potentially Occur in the Study Corridor [or]...List of Plants Identified as Occurring in the Study Corridor...delete[ing] the names of five plants now listed in the appendix... [LTR 007]*

Response: Appendix C (Common and Scientific names of Plants in Study Corridor) is intended simply as a guide to all scientific names found in the draft EIS. It is not intended to represent a list of all species located in the project area. Revisions have been made to the appendix title for clarification.

Wildlife

Comment: *Page S-20 describes environmental consequences of the project on wildlife species. The section addresses in a cursory fashion the effect of the existing corridor and, to a lesser extent, the proposed project on habitat fragmentation. The corridor, access roads, and transmission lines serve as an obstacle to animal migration through the area. The corridor and road likely deter terrestrial animals from crossing due to lack of cover, reduced forage and browsing opportunities for species, changes in wildlife migrations patterns, and occasional human activity in these areas. [LTR 008]*

Response: Wildlife habitat and movement of wildlife along the transmission line route have been affected by a variety of land uses and manmade features, including but not limited to SR 14, intensive agriculture, existing unpaved roads, and transmission towers. These existing uses have resulted in fragmentation of natural wildlife habitats along the entire length of the project corridor. As mentioned on page 3-52 in the vegetation section of the draft EIS, design and construction of the proposed project will focus on minimizing vegetative clearing, particularly in areas of the higher quality shrub-steppe. Additionally, reseeded construction areas will provide some measure of habitat for wildlife.

Comment: *The EIS demonstrates that transmission lines act as a barrier to bird movement. We are concerned that transmission lines could separate the cliff nesting areas for bald eagles from the riverine areas where bald eagles hunt. In addition, the corridor creates edge effects which likely favor several bird and wildlife species. [LTR 008]*

Response: As mentioned on page 3-54 of the draft EIS, no bald eagle nesting occurs in the project area. Pages 3-68 through 3-71 discuss the potential effect of the transmission line on bird movement; mitigation measures are defined on pages 3-73.

4 Responses to Comments

Comment: *Page 3-57 states that most nest sites for raptors occur on cliffs, although artificial structures such as power line towers are also used for nesting and perching. The EIS should state whether proposed or existing power lines towers could be and should be modified to enhance raptors' ability to nest on them. [LTR 008]*

Response: Although some raptors have been known to nest on transmission lines, the use of towers for that purpose is not encouraged by Bonneville or utility companies in general. There are no plans to modify the structures to encourage nesting.

Comment: *Page 3-58 states that American white pelicans, a state-listed bird, are known to forage on islands located about 3 miles south of the project corridor. The EIS should describe to the south of where, along the 79-mile long project corridor, American white pelicans forage or include a map illustrating their location. [LTR 008]*

Response: Locations of white pelican use are shown on Figure 3-4 (following page 3-56) of the draft EIS.

Comment: *Page 3-59 states that during the spring 2001 surveys, four areas with burrows were identified in shrub-steppe habitat within the project corridor. If possible, the EIS should identify the animals using the burrows instead of listing all possible ones. [LTR 008]*

Response: Determination of species-specific use of the burrows was not feasible during surveys. Burrow areas were checked for presence of animals as well as for wildlife signs such as footprints and scat. Species-specific use (e.g., burrowing owls) of burrows were rated based on the field observations. Use of burrows by wildlife varies annually and sometimes seasonally. Information on burrow locations will be used for preparation of the Mitigation Action Plan. Major burrow areas will be flagged as sensitive areas and designated off-limits during construction.

Comment: *Page 3-64 should state if tower locations would impact burrowing owl burrow areas and if so, where towers would be relocated to avoid these areas. [LTR 008]*

Response: As discussed on page 3-64 of the draft EIS, it is expected that burrowing owl habitat (including burrowing areas) could be affected by the proposed action. However, mitigation is included to avoid occupied burrows. Burrowing owl habitat and occupied burrows will be identified in the Mitigation Action Plan as a sensitive wildlife area to be avoided during construction. Please see page 3-73 of the draft EIS for mitigation measures.

Comment: *Page 3-60 states that there have not been any reports of sensitive-status reptiles in the project vicinity; however, suitable habitat is present for the following*

species. The EIS should report the results of surveys for reptiles in the project area. [LTR 008]

Response: No formal surveys of reptiles were conducted for the project. Any reptiles observed during field surveys were reported by species in field notes and in the species list.

Comment: *Pages 3-63 and 3-64 state that several 40- to 50-foot cottonwoods representing potential eagle perching habitat and located near the Corps' Wildlife Natural Area at the McNary Substation may need to be removed under the McNary Substation Alternative B to facilitate transmission line clearance. The EIS should state whether these trees can be moved to another location in the Corps' Wildlife Natural Area rather than being removed. [LTR 008]*

Response: Moving the trees to other locations is not considered feasible for such large trees.

Comment: *Page 3-65 discusses impacts to passerines. This section should also discuss the impact of edge effect and habitat fragmentation from the existing and expanded transmission line corridor, especially how it can affect species composition. [LTR 008]*

Response: The creation of edge effect by the proposed alignment will result from construction of towers and spur roads. See revised Table 3-12 in Chapter 3 of this final EIS for revised acreages. Approximately 90% of the alignment is currently in a highly modified habitat condition due to past and current land use activities. Of the remaining 10% (consisting of riparian, scabland/lithosols, and shrub-dominated shrub-steppe), only 7 acres would be permanently changed to towers or access roads. An additional 22 to 23 acres within these more native habitats would be temporarily impacted (Table 3-13). The edge effect resulting from these changes may result in localized changes in vegetation covers and suitable habitat for some passerines (e.g., Brewer's, sage, and vesper sparrows) (Vander Haegen et al. 2000). The more ubiquitous passerines would be unaffected.

Comment: *Page 3-66 states that the project will require the construction of approximately 3 miles of new access road and 270 short spur roads, which would remove vegetation and wildlife habitat. We recommend that the EIS examine compensating for the loss of this land using land purchases or habitat enhancement projects. [LTR 008]*

Response: Table 3-12 of this final EIS (Chapter 3) identifies the impacts to vegetation types from road construction. Of the 63 acres to be permanently impacted from roads, 90% would occur in highly disturbed habitats (agricultural, grassland, grazed shrub-steppe), with the remaining 10% (5 acres) occurring in the less disturbed lithosols and shrub-dominated shrub-steppe.

4 Responses to Comments

As a part of the Mitigation Action Plan, Bonneville is formulating a mitigation approach to address loss of the shrub-steppe and lithosol habitats. We will consider both land purchases and habitat enhancement projects and will work with both the State and USF&WS to determine appropriate mitigation. The mitigation approach will consider such factors as acreage, type of impact, and condition of the habitat.

Also, please note that Bonneville would pay the landowners fair market value for any new access road easements that need to be acquired.

Comment: *Page 3-70 states that raptors are often attracted to transmission towers to use them as nesting sites. The EIS should also recognize the use of transmission lines and towers as places where raptors perch to view the area for prey. [LTR 008]*

Response: A revision has been made to page 3-70 to acknowledge this potential use.

Comment: *Page 3-70 contains a very brief discussion of the avoidance of areas by wildlife. This section should additionally discuss wildlife avoiding the area because of a lack of cover and foraging and browsing plants. [LTR 008]*

Response: A revision has been made to page 3-70 to further clarify this potential impact.

Comment: *Page 3-73 contains the following mitigation measure: prior to construction, conduct raptor nest surveys of cliffs located within 0.25 mile of the right-of-way. EPA supports and NEPA requires information on the affected environment, however, data collection is not a mitigation measure. This information should already be included in the EIS to establish baseline information and determine project impacts. [LTR 008]*

Response: This measure represents an additional survey prior to construction needed to confirm if raptors are actually present at the time construction would begin. This additional survey would determine if nests are actually occupied within the 0.25 mile of the alignment in order to know if other construction timing measures would need to be implemented so as not to disturb nests.

Comment: *While the DEIS identifies the Environmental Consequences and provides means to avoid most of the potential environmental risks associated with the proposed project, it also itemizes impacts which cannot be avoided. We believe that the project will contribute to an increased level of habitat fragmentation and a reduction in available shrub-steppe vegetation for wildlife habitat. [LTR 011]*

Comment: *Unmitigated impacts include the area of habitat which will be lost through construction of roads, improved roads, pulling and reeling, staging areas, substations, wetlands, water crossing structures, riparian corridors, and well as other cumulative*

impacts. While it is relatively easy to total the acreage of impacted habitats, cumulative impacts and disturbance associated with the projects are more difficult to assess. [LTR 011]

Response: Fragmentation of wildlife habitat would occur in varying degrees. As indicated in Table 3-12 on page 3-43 of the draft EIS, loss of 83 acres of vegetation would occur from the proposed action. Of those 83 acres, 90% are in a highly modified condition (agricultural, grassland, grazed shrub-steppe) due to past and current land uses and activities. Of the remaining 10%, only 3 acres of shrub-dominated shrub-steppe would be permanently removed by the project. The impact would be minimized through reseeding temporarily disturbed higher quality shrub-steppe with native grasses and forbs (page 3-52) and minimizing the amount of vegetation clearing and road construction in shrub-steppe areas (page 3-74).

The combined impact of construction activities would result in an incremental reduction of wildlife habitat of varying quality within the project area. Cumulative impacts which would vary by wildlife species, and habitat type affected, are defined on pages 3-127 through 3-131 of the draft EIS. The acreage of impacts have been updated since the draft EIS. Please see revisions to tables 3-12 and 3-13.

Comment: *Section S-2 of the DEIS indicates that the road disturbance associated with the preferred alternative will result in 15.8 miles of new road or more than 76 acres (15.8 miles x 5,280 ft/mile x 40 foot average road width) of habitat disturbance. It is not clear in the DEIS about the amount of additional vegetation or shrub-steppe impacts associated with improving and widening 40 miles of existing roads. [LTR 011]*

Response: Please refer to *Regrading of Existing Roads* in the Vegetation section on page 3-45 of the draft EIS. Reconstruction of existing access roads would affect approximately 78 acres of previously disturbed area not supporting vegetation communities.

Table 3-12 in Chapter 3 of this final EIS identifies the impacts of new access road construction on vegetation, resulting in the permanent loss of 34 acres of shrub-steppe habitat. The acreage of impacts have been updated since the draft EIS. Table 3-13 identifies the temporary impacts to vegetation.

Comment: *Section S-2 also indicates that the tower pads will result in the loss of 90.0 acres (360 towers x 0.25 acre disturbance), and an additional 1.3 acres will be lost to substation installation. These figures add up to more than 167 acres of habitat that would be lost through implementation of the preferred alternative, not including impacts associated with wetlands, equipment staging areas, and conductor tensioning sites. The shrub steppe component of the lost habitat appears to be 51 acres (68 acres of vegetation – 17 acres of agricultural land) that will be permanently disturbed. [LTR 011]*

4 Responses to Comments

Response: Tables 3-12 (page 3-43) and 3-13 (page 3-44) present the permanent and temporary impacts to vegetation. The acreage of impacts have been updated since the draft EIS, please see revisions to Tables 3-12 and 3-13 in Chapter 3 of this document. The area of permanent impact by towers has been changed from 0.25 acre to 0.05 acre. Eighty-three acres would be permanently converted to project structures, while the temporary impacts would range from 211 to 226 acres. Approximately 42 acres of shrub-steppe would be permanently converted to project structures (see Table 3-12).

Comment: *It appears that the total direct loss of shrub-steppe habitat will be between 50 and 100 acres. Direct loss may be reduced if restoration and revegetation work is implemented in the project corridor.*

Response: See updated Tables 3-12 and 3-13 of this final EIS. Eighty-three acres would be permanently converted to project structures, while the temporary impacts would range from 211 to 226 acres. Approximately 42 acres of shrub-steppe would be permanent converted to project structures (see Table 3-12).

Revegetation in shrub-steppe is identified as a mitigation measure on page 3-52. The exact location of revegetation will be determined during preparation of the Mitigation Action Plan for the alignment.

Comment: *Additional impacts to fish and wildlife which are likely to result from implementation of the preferred alternative include, the lineal distribution of noxious weeds, bird strikes, some loss of ecological connectivity due to habitat fragmentation. [LTR 011]*

Response: Comment noted. These impacts were identified in the Vegetation and Wildlife sections of the draft EIS.

Comment: *WDFW's mitigation policy is to seek greater than 1:1 mitigation ratios for impacts or direct loss of fish and wildlife habitat. Three to one (3:1) ratios are typically used. A 3:1 to 5:1 mitigation ratio is valid for shrub-steppe due to: 1) difficulty in restoring habitats in arid environments; 2) length of time to restore a climax community (20-30+ years for sagebrush); 3) fragmentation impacts beyond those of direct habitat lost by roads, towers etc. (e.g., transmission line built through a remnant block of shrub-steppe reduces the ecological connectivity and functionality of the whole block even though most habitat is not directly disturbed). [LTR 011]*

Comment: *With consideration of expected cumulative impacts it appears that the preferred alternative will conservatively require acquisition or protection of a minimum of 150 to 300 acres of shrub-steppe habitat to mitigate for impacts which cannot be avoided. [LTR 011]*

Response: As a part of the Mitigation Action Plan, Bonneville is determining an appropriate mitigation approach to address loss of the shrub-steppe and lithosol habitats. The mitigation approach will consider such factors as acreage, type of impact, and condition of the habitat. The EIS has been corrected to clarify that compensatory mitigation is under consideration for these impacts. Bonneville will be continuing its dialogue with WDFW on these issues.

Cultural Resources

Comment: *Are you doing studies for traditional cultural properties review? (tribal) [PS]*

Response: The affected Tribes have identified TCPs (Traditional Cultural Properties) along the project. Pages 3-77 and 3-78 list the TCPs that the Umatilla Tribes have identified. The Warm Springs indicated the entire project area is to be considered a “cultural site” as per definition of Tribal Ordinance 68, Chapter 490. The Warm Springs designated no TCPs. Information from the Yakama Nation was not available.

Text has been added to page 3-78 of the draft EIS.

Comment: *Archaeology site – you’ve done surveys?*

Response: Yes, Reconnaissance level surveys were conducted in September 2001, November–December 2001, and May 2002.

Comment: *Know of lots of arrow heads near John Day. [PS]*

Response: This area along the Columbia River was heavily used by various Tribes. Arrowheads are common artifacts along the Columbia River and reflect use of the region by prehistoric, ethnographic, and modern native American peoples. Arrowheads or projectile points alone do not constitute an archaeological site.

Comment: *There are a lot of caves around corridor miles 52 and 53. [RS]*

Comment: *There are a lot of caves along the flats. (see sheets 68-72) [RS]*

Response: Yes, cultural resource specialists have noted the caves during the surveys of the corridor.

Comment: *[Correction] - text of DEIS - Chapman Creek named after Joe Chapman, who established a wood yard for steamers at the mouth of creek in 1859. (pg. 3-80 of DEIS) [RS]*

Response: Thank you, the revision has been made.

4 Responses to Comments

Comment: *Pioneer cemetery 1870's/80's, 4 headstones, used to be more wooden crosses but burned in fires. [RS]*

Response: Thank you for the information. The cemetery was noted during cultural resource surveys.

Comment: *It is impossible for us to comment on the effects this proposed project will have on cultural resources prior to the publication of the cultural resource survey report prepared for this project. [LTR 004]*

Response: The Cultural Resources Technical Report, which will have details regarding impacts and mitigation measures for cultural resources, has been sent to the affected Tribes, Federal land managing agencies along the line, and the State Historic Preservation Officers for review and comment before being submitted to the SHPO's for concurrence.

Comment: *We wish to be clear that Bonneville will need to provide us with an adequate opportunity to comment on that report. [LTR 004]*

Response: Bonneville will provide you an opportunity to review the draft report and would greatly appreciate your comments.

Comment: *Our initial reaction to the cultural resources sections is that they exclusively focus on Washington. The majority of the project is in the state of Washington, but both ends are in Oregon. The scales of the maps in the draft EIS are such that you can not tell whether the proposed transmission line will go through known sites in Oregon. [LTR 004]*

Response: Because of the sensitivity of sites, Bonneville does not put maps showing cultural sites in the EIS. As a Tribe, you will have an opportunity to review the Technical Report, which will show detailed maps of all sites.

Comment: *The fact that the Recent Recorded History section does not talk about the cities of Umatilla, McNary, or Rufus, Oregon, the railroad on the Oregon side, or Interstate 84 when the proposed line seems to relate to each is disappointing. [LTR 004]*

Response: All of the areas will be addressed in the Cultural Resources Technical Report.

Comment: *We were also surprised to see the main reference to Lewis and Clark was to their stay in Wishram, considerably downstream from the project area, rather than to their visit to Plymouth Island, Blalock Island, or the like. [LTR 004]*

Response: Lewis and Clark references have been updated in the EIS and also will be addressed in the Cultural Resources Technical Report.

Text has been added to page 3-78 of the draft EIS.

Comment: *It is not clear for the Tribal Oral History section whether Jones and Stokes has yet to receive reports from the Warm Springs and the Yakama Nation or if they have decided to only summarize the CTUIR's report. [LTR 004]*

Response: The oral history summaries from the Confederated Tribes of Warm Springs are included in the final EIS. The Yakama Nation oral history was not available for summary in the Final EIS.

An addition has been made to page 3-78 of the draft EIS.

Comment: *On page 3-77 there is what appears to be a quote from a report by Catherine Dickson that refers to the CTUIR's traditional cultural properties. This quote is actually from a report by Tera Farrow. [LTR 004]*

Response: Thank you, the text has been revised to credit the quote to Tera Farrow instead of Catherine Dickson.

A revision has been made to page 3-77, paragraph 3 of the draft EIS.

Comment: *It is unclear when a cultural resource monitor will be present. Will it be during the construction of all new roads or towers, certain new roads, and/or certain towers? Who will make that decision? We would like to remind Bonneville that on previous projects where you have agreed to have a cultural resource monitor present, there have been considerable communication difficulties and often the project has taken place without the monitor. We hope that Bonneville will ensure that such a problem will not be encountered on this project. [LTR 004]*

Response: Bonneville's and Jones & Stokes' archeologists, in coordination with the affected Tribes, would develop a monitoring plan, including a determination of cultural-resource high-probability areas for monitoring. Bonneville would also develop a cultural resource management plan for protection of resources during operation and maintenance of the line. Bonneville is committed to having monitors present where appropriate.

Comment: *It is apparent that the new roads will be constructed as part of this project and presumed that existing roads may be improved. Will Bonneville take any measures to ensure that these roads are not accessible to the public? Otherwise increased numbers of people may be able to reach some of these formerly remote sites. [LTR 004]*

4 Responses to Comments

Response: Because Bonneville does not own the land, but has an easement on it, accessibility of the access roads to the public would be determined by the land agreement with the individual landowners.

Comment: *On page 3-84, the draft EIS states, “Of the 14 [newly recorded] cultural resource sites found, 12 require avoidance and two sites require avoidance.” Presumably this should match the statement on page S-23, “Of the 14 cultural resource sites found along the corridor, 12 require avoidance and two sites should have cultural resource monitors during construction excavation.” [LTR 004]*

Comment: *Under the “Impacts During Construction” heading on page 3-84...The second sentence in the second paragraph states “Of the 14 cultural sites found, 12 require avoidance and two sites require avoidance.” This should be corrected. [LTR 007]*

Comment: *...the DEIS summary section (page S-23, second paragraph) indicates that two recently documented sites and one previously documented site require monitoring during construction excavation. Would these sites be avoided as indicated on page 3-84? [LTR 007]*

Response: A correction has been made to the first reference on page 3-84 that the two sites require monitoring, not avoidance.

A revision has been made to page 3-84, paragraph 3 of the draft EIS.

Comment: *The next sentence on page S-23 is, “Of the 10 previously documented cultural resource sites along the corridor, nine require avoidance and one site requires a cultural monitor during construction excavation.” Back on page 3-84, the corresponding sentence adds a clause: “one site requires avoidance plus a cultural resource monitor during construction excavation.” Will the tenth site be avoided or not? [LTR 004]*

Response: Yes, the site will be avoided.

Comment: *Without knowing the character of any of the previously recorded sites or which newly recorded sites will not be avoided, it is impossible to comment on the adequacy of the mitigation measures. Certainly it will not be acceptable for ground disturbing activities to take place in and around Site G, an ethnographic/ethnohistoric cemetery. [LTR 004]*

Response: No site-disturbing activities will take place in and around any site identified as eligible for listing in the National Register of Historic Places.

Comment: *Does Bonneville plan to treat all of these sites as if they are eligible for inclusion in the National Register of Historic Places or will the cultural resources report make recommendations on determinations of eligibility? [LTR 004]*

Response: The Cultural Resources Technical Report will make recommendations on determinations of eligibility.

Comment: *We are also concerned about the newly recorded sites within existing roads. How will these sites be protected from further damage? [LTR 004]*

Response: Sites within existing roads will be avoided during construction associated with the McNary-John Day Transmission Line Project. Sensitive areas will be buffered against unnecessary access and cultural resource monitors, if necessary, will be present. All sensitive areas near proposed access roads were identified in the cultural resource technical report and discussed with Bonneville's road engineer. The laying down of rock to improve upon access roads in and around sensitive areas is one measure to be implemented to minimize the amount of subsurface disturbance.

Comment: *Finally, on page 3-86 under Unavoidable Impacts Remaining after Mitigation, "In the absence of a programmatic agreement, any discovered cultural resources could be subject to mitigation through data recovery." We would like to be clear that we do not support total data recovery except as a last resort. [LTR 004]*

Response: Thank you for your comment. Data recovery is the last resort option. Site avoidance by tower, road, and staging area relocation is the preferred form of mitigation. In instances where construction activities are close to known cultural resources but not directly impacting the site, a cultural resource monitor should be present during all ground disturbing activities.

Comment: *The DEIS refers to field survey conducted for the project area (3-81), but an inventory report has not been submitted for BLM review. The information provided is insufficient to verify the APE identified, and the level and extent of inventory conducted for it. A complete inventory report is required to meet Section 106 requirements for the National Historic Preservation Act. Maps of the identified APE and area inventoried are needed. [LTR 007]*

Response: A copy of the draft Cultural Resources Technical Report will be forwarded to BLM as soon as it is completed.

Comment: *Were BLM lands inventoried [for cultural resources]? [LTR 007]*

Response: Yes.

4 Responses to Comments

Comment: *Did the contracting firm receive the required permits to conduct cultural inventory on Federal lands? [LTR 007]*

Response: The archeologist's team stayed on the existing right-of-way. In the places where Bonneville does not have existing right-of-way, Bonneville had permission-to-enter permits from landowners.

Comment: *What level of [cultural] inventory was conducted? LTR 007]*

Response: A reconnaissance level inventory was conducted during December 2001. Members of the Confederated Tribes of the Umatilla Indian Reservation subcontracted with Jones & Stokes to survey a portion of the right-of-way between the McNary Substation and the Benton/Klickitat County line.

Further surveys with the Yakama Nation were performed during June 2002. These findings were included in the Cultural Resources Technical Report.

Comment: *Were [cultural] sites located on BLM administered lands? [LTR 007]*

Response: A known site was reidentified on what may be BLM land. Bonneville will be able to clarify this with the technical report.

Comment: *Will the [cultural] sites be avoided by the proposed project? [LTR 007]*

Response: Sites will be avoided by the proposed project.

Comment: *What are the proposed buffers around [cultural] sites that would be avoided? [LTR 007]*

Response: Offsets and buffers would be determined around previously recorded and newly identified archaeological sites based on Bonneville practices for avoiding adverse effects to historic properties, tribal concerns, and the Oregon and Washington SHPO concurrence.

An addition has been made to page 3-85, after bullet 7 of the draft EIS.

Comment: *Which [cultural] sites would be monitored and what criteria is used for site selection? [LTR 007]*

Comment: *Under the "Impacts During Construction" heading on page 3-84, the last sentence of the first paragraph states that "Cultural resource monitors could be provided." Under what conditions would a monitor be employed in ground disturbing activities? [LTR 007]*

Response: Any construction activity in and around sites eligible for listing in the National Register of Historic Places would require a monitor. Sites to be monitored would be determined based on Bonneville practices for avoiding adverse effects to historic properties, tribal concerns and the Oregon and Washington SHPO concurrence.

Revisions have been made to page 3-85 of the draft EIS to clarify.

Comment: *Why is a portion of the corridor planned for [cultural] re-survey under contract with the Yakama Nation? LTR 007]*

Response: It was agreed at a meeting in March 2001 that Bonneville, via Jones & Stokes, would contract with the Yakama Nation to assist on the cultural resources survey for the western two-thirds of the McNary-John Day Transmission Line Project. Delays in finalizing the contract caused delays in the production of the draft and final versions of the Cultural Resources Technical Report.

Comment: *Are the identified TCP's within the APE? [LTR 007]*

Response: Yes. The Confederated Tribes of the Umatilla Indian Reservation completed their assessment of the McNary-John Day Transmission Line Project and concluded that there are TCPs within the project's APE. The Tribe has chosen not to nominate the TCPs to the National Register of Historic Places on the basis of site disclosure and the implications for drawing attention to sensitive cultural sites.

Warm Springs did not identify any TCPs within the APE. The Yakama Nation did not submit documentation in time for inclusion in the final EIS.

Comment: *Have boundaries and supporting documentation been completed for the TCP's? [LTR 007]*

Response: The Confederated Tribes of the Umatilla Indian Reservation completed their assessment of the McNary-John Day Transmission Line Project and concluded that there are TCPs within the project's APE. The Tribe has chosen not to nominate the identified TCPs to the National Register of Historic Places on the basis of site disclosure and the implications for drawing attention to sensitive cultural sites.

Warm Springs completed their oral history study and did not identify any TCPs within the APE. The Yakama Nation did not submit documentation in time for inclusion in the final EIS.

Comment: *Is future consultation and resurvey with the Yakama nation expected to identify additional TCP's? [LTR 007]*

4 Responses to Comments

Response: The Yakama Nation will be reporting on the oral history of the proposed project area and will be identifying TCPs along the corridor. Bonneville expects additional TCP's to be identified.

Comment: *Has the eligibility of the properties been determined in consultation with the Native American Tribes, the Washington State Historic Preservation Office (SHPO), and if located on federal lands, the responsible agencies? [LTR 007]*

Response: Eligibility has not yet been determined. This topic has been addressed in the Cultural Resources Technical Report. An evaluation of the newly recorded properties' eligibility to the National Register of Historic Places has been provided in the Cultural Resources Technical Report, entitled *draft Archaeological Survey of the Bonneville McNary to John Day Transmission Line* (Jones & Stokes 2002). Information on site eligibility was gathered during joint field surveys with the CTUIR and the Yakama Nation during the fall 2001 field season and summer 2002. Sites identified during preliminary archaeological reconnaissance were field verified by the representatives of the Yakama Nation and the CTUIR. Site locations were discussed in relation to the proposed construction activities associated with building a 500 kV-transmission line over approximately 75 miles. Discussions with Bonneville's archaeologist, project manager, roads engineer, and construction engineer took place in order to avoid all sensitive sites.

Comment: *Will the proposed project alternatives affect eligibility of the TCP's to the National Register or affect Native American access or use of the TCPs? [LTR 007]*

Comment: *Will the TCPs be avoided? Have effects to the TCPs been identified and are the mitigation elements identified on page S-24 adequate to mitigate these effects? [LTR 007]*

Comment: *Documentation and maps of the TCPs are needed to identify the location of the properties relative to the project, thereby permitting review of the contractor assessment of effects to these properties. [LTR 007]*

Response: This project will not impact the eligibility of any of the identified TCPs along the proposed route. A cumulative effect of the addition of a transmission line to the integrity of any identified TCPs would be judged on a case-by-case basis.

Comment: *The mitigation section (page 3-85) lists consultation with Umatilla Tribes and the Yakama Nation regarding site monitoring, and for establishing consultation protocols for site mitigation and management. Why is the Warm Springs Tribe not mentioned? [LTR 007]*

Response: The Umatilla Tribes, the Yakama Nation, and the Warm Springs Tribes will be consulted through the duration of the project with regards to site mitigation and management.

A revision has been made to page 3-85, bullet item 6 of the draft EIS.

Comment: *In instances of unanticipated finds, the text states that the tribes would be contacted. Neither SHPO nor the land management agencies are mentioned in this context. For public lands, both SHPO and BLM should be contacted in the event of inadvertent discovery of cultural resources. Similarly, consultation should be conducted with the tribes, SHPO, and BLM for cultural properties located on BLM administered lands. [LTR 007]*

Response: You are correct. The SHPO and the affected land management agencies would also be contacted in the event of an unanticipated find.

A revision has been made to page 3-86, bullet 9 of the draft EIS.

Comment: *The fourth bullet under the mitigation heading on page 3-85 should be clarified. [LTR 007]*

Response: Thank you. The mitigation measure has been clarified.

Comment: *Under the “Impacts During Operation and Maintenance,” heading on page 3-85, the last sentence in the first paragraph indicates review would be required if any maintenance activities need to occur outside of the tower locations or off access roads. More detail is needed on the type of review that would take place. Is consultation with tribes, SHPO or federal land management agency to be conducted as part of the review? [LTR 007]*

Response: Yes, consultation would be part of the review. Revisions and additions have been made to page 81, paragraph 1 of the draft EIS under “Impacts During Operation and Maintenance.” Further consultation with the appropriate state and federal agencies, including Washington OAHF, Oregon SHPO, the Yakama Nation, Warm Springs and Umatilla Tribes would take place if any maintenance activities need to occur outside of the tower locations or off the access roads.

A revision has been made to page 3-85, paragraph 2 of the draft EIS.

Visual Resources

Comment: *Bonneville should consider including maps that identify sections of SR14 where the proposed project would be visible. [LTR 008]*

4 Responses to Comments

Response: The resource maps located in various sections of the EIS indicate the proximity of the right-of-way to SR 14. Travelers on SR 14 would be in close proximity and would have unobstructed views of the line between corridor miles 0 and 16. Views of the line would be intermittent between corridor miles 16 and 79 due to the topography. See Chapter 3, Visual Resources, Travelers and Recreationists for a detailed description of views from SR 14.

Comment: *Page 3-91 describes viewshed impacts from the proposed transmission line. The EIS should state whether those impacts would be significant or not. [LTR 008]*

Response: Bonneville assessed impacts to visual resources from the proposed action and alternatives in the Visual Resources section of the EIS. The discussion of impacts in this section clearly identifies the potential impacts from several sensitive viewpoints along the project corridor, as well as various other locations along the corridor. The EIS identifies the significance of the various visual impacts of the proposed action and alternatives in terms of context (e.g., the extent and duration of the impact) and intensity (e.g., the severity of the impact), which are used in the NEPA regulations to define significance.

Comment: *Is there a visual impact assessment of the line along highway looking at river? [PS]*

Response: Paragraphs 3 and 4 of Chapter 3, Visual Resources, Travelers and Recreationists, describe views of the line along SR 14 looking toward the Columbia River. Paragraph 3 of the same section describes views of the line from I-84 looking toward the Columbia River.

Socioeconomics, Public Services, and Utilities

Comment: *What happens to land values around new substations? [PS]*

Response: Bonneville is not proposing to construct any new substations for this project. Bonneville does propose to expand the McNary Substation by approximately 1.3 acres, but this will be on existing Bonneville property. In answer to your question, some short-term adverse impacts on property value and saleability may occur on an individual basis. However, these impacts are highly variable, individualized, and not predictable. The project is not expected to cause overall long-term adverse affects on property values along the existing and proposed right-of-way or adjacent to the existing substations.

Comment: *Are there job opportunities associated with this project? [PS]*

Comment: *We would be happy to be involved in the construction of the McNary-John Day Project... Could you put me in the contract with the appropriate people.--Superior Electric [E-M 002]*

Comment: *Is there a process so that local people will be hired for this project? [PS]*

Comment: *If you don't hire local people, you'll have a problem ~ guaranteed! [PS]*

Response: Duke Energy would be the construction contractor responsible for building the line. Although Duke is based in Charlotte, NC, it will place a headquarters in the Tri-cities and hire from the local community. Duke's teammates, Henkels & McCoy, will hire linemen through union halls in Vancouver, WA and Portland, OR.

Comment: *What is the process the landowner can expect if we relocate the easement and move towers? [RS]*

Comment: *What's the process for paying on the additional right-of-way needed? [RS]*

Comment: *What is involved with getting right-of-way from landowner? [RS]*

Response: Bonneville would need to acquire some additional easements to build, operate and maintain the proposed transmission line facilities. Landowners would be contacted and offered fair market value for the easements, established through the appraisal process. The appraisal process takes all factors affecting value into consideration including the impact of transmission lines on property value. Upon receipt of a signed Contract and Grant of Easement, Bonneville records the easement and payment is made to the landowner.

Comment: *The EIS should state how Bonneville will deal with owners refusing offers for right-of-way easements (e.g., by using alternative routes or exercising eminent domain). [LTR 008]*

Comment: *Can you condemn the Indian land? [RS]*

Response: To construct the proposed action, Bonneville would need to acquire the right to use various property along the transmission corridor through either purchases of rights-of-way easements or condemnation proceedings. Bonneville preference is to purchase the right-of-way easements through mutual agreement by Bonneville and the property owner and not through condemnation proceedings. It is not known at this time precisely which method Bonneville would use to acquire these rights for a particular property. Nevertheless, how Bonneville acquires these rights, by either purchase or condemnation, would not result in differing environmental effects meriting separate analyses under NEPA – i.e., the expected environmental effects would be the same regardless of the acquisition method used, and the effects related to acquisition are discussed in the Socioeconomics, Public Services, and Utilities section of Chapter 3 of

4 Responses to Comments

the EIS. However, the following discussion is provided for the information of the commenters.

If owners refuse Bonneville's offers to buy right-of-way easements, it is very likely that Bonneville will have to acquire the rights through condemnation. After a transmission line route has been selected and surveyed, it is usually not possible to use alternative routes to avoid areas where owners are not willing to sell right-of-way easements. This is particularly true of transmission line easements, but it generally is true of access easements as well. In some cases, feasible alternative means of access may be found.

Comment: *If construction is done in the fall, can landowner in Sherman County be compensated for hunting revenue? [LTR 005]*

Comment: *[I lease my land in the fall for exclusive rights to hunt. This project will disrupt this fall season, if...construction will begin on my property about October 2002]. Does Bonneville have a mechanism in place for you to apply for loss of income due to project? [PH 009]*

Response: Bonneville would coordinate its construction schedule with the concerns of the landowners to the extent practicable. Construction schedules may be limited by the opportunities to obtain outages on existing transmission lines. On other projects, some landowners have found it helpful to post signs, listing their telephone number, so that construction crews could contact them letting them know when they may be working in that particular area. Bonneville would not pay for loss of hunting revenues.

Comment: *The EIS should state if the owners of parcels proposed to be crossed by the transmission line have been contacted by Bonneville and whether tentative agreements have been reached. [LTR 008]*

Response: The draft EIS, letters sent to landowners, public meetings, as well as one-on-one contacts made with some of the landowners are the mechanisms Bonneville used to keep landowners informed of the proposal to construct a new transmission line. The draft EIS states that landowners will be contacted and offered fair market value for any easements that need to be acquired. Once legal descriptions are completed, the appraisers will contact the landowners and offer them an opportunity to accompany them on the appraisal. The negotiator will then present the landowners with an offer of fair market value for the land rights needed. Tentative agreements have not been made since we are not far enough along in the process to make an offer.

Noise

Comment: *Because helicopters could potentially be used to install towers, the impact analyses in the EIS should reflect their use. [LTR 008]*

Response: Page S-32 and the noise section of Chapter 3 addresses construction, operation, and maintenance noise impacts as they relate to helicopter use. Mitigation measures are also provided.

Public Health and Safety

Comment: *Page S-34 states that predicted field levels are only indicators of how the proposed project may affect the magnetic-field environment. They are not measures of risk or impacts on health. The latter is what NEPA requires. The EIS should contain the best prediction of health risks based on available information. [LTR 008]*

Response: Appendix G, *Assessment of Research Regarding EMF and Health and Environmental Effects*, reviews numerous scientific research studies on the potential health affects of electric and magnetic field exposure. Because of the insufficient evidence and uncertainties regarding potential long-term health effects, Bonneville provides an assessment of EMF exposure by reporting the predicted field levels caused by proposed project alternatives. It would be speculative for Bonneville to attempt to predict possible health risks/impacts associated with these exposures when the scientific community, in the presence of such uncertainty, has been unable to do so.

Comment: *Page S-35 contains the following mitigation measure: crop dusting pilots planning to enter the area would take suitable precautions to avoid collision with the proposed transmission line. We recommend that this mitigation measure be rewritten to reflect an action that the lead agency could take (e.g., educate crop dusting pilots about the location of the proposed transmission line). [LTR 008]*

Response: The mitigation measure has been removed. Area residents are aware of the new line. Crop dusters would know how to deal with power lines in their work.

Comment: *Does the EIS address the alarms all along highway for Umatilla Gas Incinerator [PS]?*

Comment: *Put in contracts so that workers know about emergency preparedness. (Have small radios that will tell them what to do.) [PS]*

Response: Yes, the draft EIS describes the emergency preparedness program under Hazardous Materials on page 4-11 and includes a mitigation measure to inform the construction workers about the program (page 3-126).

Comment: *Concerned about fires from problems with the line. [RS]*

Response: One potential issue for transmission lines starting fires is if vegetation is allowed to grow near the line; electricity can arc to the vegetation and start a fire.

4 Responses to Comments

However, Bonneville's vegetation management program ensures that the vegetation is kept at a safe distance for the line.

Comment: *Flash over due to bird droppings. [RS]*

Response: Heavy bird droppings on the insulators can create a path that bypasses the insulator, causing the electricity to arc. Where that becomes a persistent issue, Bonneville installs devices to discourage birds from nesting or perching on the tower.

Comment: *Fires -- Any hint of negligence, and fire department will pursue and so will landowners! [RS]*

Comment: *Grass fires are fairly common. The railroad set a fire in August of 2001, sparks off the railcars. [RS]*

Response: Bonneville understands the extreme fire danger in this area. Bonneville will continue to enforce strict fire preventive measures on our employees and contractors.

Comment: *Has a fire ever cut the wire in two? [RS]*

Response: No.

Comment: *One gate is still sparking at 66/6 tower McNary-Ross. (Fence needs to be grounded, to do so, talk to maintenance.) [RS]*

Response: Bonneville's district foreman met with the landowner on site to assess the problems. The fence was grounded and the issue was resolved. If you receive shocks from fences or structures near a line in this area, please call the Walla Walla Regional Office at 509/527-6238 and they will get someone out to address the problem.

Comment: *How tall will the new towers be when you cross over to the south side of the highway? (sheet 68), We're concerned about clearance since we hay in this area. [RS]*

Response: If either the Hanford-John Day Alternatives B or C (south side alternatives) were selected, the proposed line would cross to the south side of the highway at the point you are describing. Exact towers heights have not been determined. However, the line would cross over the top of the existing lines and most lines provide adequate clearance for farming.

Comment: *In winter - Low fire hazard, but greater risk of damage to roads. [RS]*

Response: The project would be constructed throughout the year, weather permitting. Bonneville would take precautions for fire hazards in the summer/fall months and clean-up road or right-of-way rutting if winter construction.

Cumulative Impacts

Comment: *The EIS does not examine the foreseeable future actions associated with building the power line. For example, are future gas-powered electricity generators more likely to be located close to the power line, thus concentrating impacts from air emissions. The EIS should discuss foreseeable future actions associated with this project. [LTR 008]*

Response: Pages 1-5 through 1-7 of the draft EIS identify foreseeable future energy projects that would rely on the proposed project to convey electricity generated from those facilities. These projects are also identified on page 3-128 in the Cumulative Impacts section of the EIS. The impacts associated with those projects have been or are currently being analyzed in NEPA documents for those projects, and the cumulative impacts are discussed on pages 3-129 to 3-131 of the EIS for the proposed action.

Comment: *It is difficult to evaluate impacts and develop suitable mitigation through a piecemeal approach whereby each project is considered individually and not in context with all Bonneville's proposals in south central and south eastern Washington. Independent biological assessments of the environmental impacts of multiple projects in shrub-steppe habitat often does not fully assess the combined cumulative effects on the landscape. [LTR 011]*

Comment: *We strongly advocate the development of a comprehensive mitigation banking plan which consolidates necessary mitigation for all proposed projects. Scientific literature indicates that shrub-steppe habitat owes a great deal of its functionality to large, contiguous blocks, and mitigation banking is a valid means of mitigating for loss of shrub-steppe vegetation. Mitigation from each proposed project could be banked to secure large blocks of relatively intact shrub-steppe habitat. The mitigation banking effort could be coordinated through Bonneville's existing Fish and Wildlife programs. [LTR 011]*

Response: Thank you for the suggestion. The infrastructure project managers and environmental leads are discussing this potential mitigation and your suggestions will be considered by Bonneville decision makers.

Consultation, Review, and Permit Requirements (Chapter 4)

Comment: *In addition, the organization and content of the EIS appears inconsistent with NEPA regulations which direct federal agencies to use NEPA procedures to ensure that 1) environmental information is available to public officials and citizens before decisions are made and before actions are taken (40 CFR 1500.1(b)) and 2) the EIS is supported by evidence that agencies have made the necessary environmental analyses (40 CFR 1500.2(b)). [LTR 008]*

Response: The organization and content of the draft EIS is consistent with the recommended EIS format and required EIS contents identified in 40 CFR 1502.10, and the draft EIS thus is consistent with NEPA regulations concerning EIS organization and content. Bonneville decision-makers will not make a decision concerning the proposed action until after the final EIS for this proposal is completed and made available in accordance with NEPA regulations. If Bonneville decides to implement the proposed action or one of the action alternatives, Bonneville will not take this action until after the decision on the proposal is made. Because no decision has yet been made and the proposed action has not yet been taken, the environmental information in the draft EIS has been provided to public officials and citizens consistent with 40 CFR 1500.1(b). In addition, because Bonneville has taken a hard look at the proposed action and its potential environmental consequences (see the responses to comments concerning identification of site-specific elements of the proposed action, adequacy of the environmental impact analysis, and level of specificity for mitigation measures), the draft EIS is consistent with 40 CFR 1500.2(b).

Comment: *The EIS should list and describe all power production and environmental laws applicable to this project. [LTR 008]*

Response: NEPA does not require the listing of applicable laws in an EIS. However, NEPA does require that an EIS provide information on all Federal permits, licenses, and entitlements that must be obtained to implement the proposal; this information is contained in Chapter 4, Consultation, Review, and Permit Requirements of the EIS. Information on applicable laws is provided in this chapter in the context of these permitting and licensing requirements. Additional information on these laws is provided in the relevant sections of Chapter 3 where appropriate.

Comment: *Are you getting access permits for the State Highway? [PS]*

Response: Bonneville would apply for new access permits needed on the state highway.

Comment: *It has taken 2 years for the County to get access permits from the state. [PS]*

Response: Comment noted.

Comment: *Shoreline, are you going to ignore like it says in the EIS? [PS]*

Comment: *Think you ought to get a shoreline permit? [RS]*

Response: As discussed in Chapter 4 of the draft EIS, Bonneville will provide each applicable local jurisdiction with information about the proposed action relevant to the jurisdiction's shoreline development permitting process. To the maximum extent practicable, Bonneville will provide the same information that a person or entity wishing to develop in the shoreline area would normally provide to the local jurisdiction pursuant to state and local laws. However, Bonneville, as a Federal entity, will not formally apply for a shoreline development permit because Congress has not waived Federal sovereign immunity from this type of local development permit.

After Bonneville submits project information, the local jurisdictions will then have the opportunity to provide comments to Bonneville on the design of the proposed transmission line within shoreline areas. Bonneville will consider any comments received from the local jurisdictions in its final design of the proposed line. As discussed in the draft EIS, Bonneville intends to plan the proposed line to be consistent to the maximum extent practicable with state and local land use plans and programs such as shoreline management master programs.

Comment: *For any oversized or overweight hauls on WSDOT-maintained rights-of-way, the applicant must obtain the appropriate permit from WSDOT prior to transporting any of these hauls. [LTR 010]*

Response: Bonneville's construction specifications state that the contractor must coordinate with the appropriate representatives when crossing state, county, and city streets as well as railroads.

Comment: *The proposed transmission line would cross three WSDOT-maintained highways: Interstate 82, State Highway 14, and State Highway 221. [LTR 010]*

Comment: *A Utility crossing permit is required for all highway crossings. Please contact the South Central Region Utilities Office to obtain the utility crossing permits. [LTR 010]*

Response: Bonneville would obtain crossing permits from the Washington State Department of Transportation for new transmission line crossings.

Comment: *Substation site access road needed, permit for county road. [PS]*

4 Responses to Comments

Comment: *Hanford (federal) is applying for permits of Benton County. [PS]*

Response: Bonneville would apply for new access permits needed on county roads.

Appendix F, Living and Working Safely Around High Voltage Power Lines

Comment: *Do you have any recent information regarding working safely around transmission lines? [PS]*

Response: The document, “Living and Working Safely Around High Voltage Power Lines, 1998” can either be ordered from Bonneville or accessed directly through its website at <http://www.transmission.bpa.gov/orgs/t/tr/documents/l-working.pdf>. The document, “Guidelines for the Installation and Operation of Irrigation Systems Near High Voltage Transmission Lines”, was updated February 15, 2002. This document can be obtained by calling our document request line at 1-800-662-4520.

Other Comments and Responses

Comment: *Prior to the completion of the final EIS, it is essential that a meeting be scheduled between Bonneville and BLM to discuss the project...[including] BLM's realty requirements for authorizing the project. The BLM's records show a 44 LD 513 authorization for the McNary-Big Eddy transmission line on a number of the tracts to be crossed by the current project. It is not evident from our files whether Bonneville has one or two existing power lines within this right-of-way. Depending on the existing situation, the Bonneville will either need to amend its existing authorization or obtain a new right-of-way. In either case, a plan of development would be required for the new transmission line. [LTR 007]*

Response: As discussed with Bonneville over the telephone, a meeting is being planned to determine the BLM land crossed and the type of authorizations that may be required.

Comment: *We are interested in a wind farm on our property in Yakima. [PS]*

Comment: *How much velocity does the wind need to make the generators work? [RS]*

Comment: *How can I get information [regarding wind projects]? [RS]*

Response: It would be appropriate for you to contact a potential wind developer or attend public meetings on other wind generation facilities.

Comment: *We [EPA] have rated the EIS, EC-2 (Environmental Concerns-Insufficient Information). We have environmental concerns with the project due to the large information gaps found throughout the document. [LTR 008]*

Response: Comment noted. See the responses to comments concerning identification of site-specific elements of the proposed action, adequacy of the environmental impact analysis, and level of specificity for mitigation measures.

Comment: *We have reviewed the draft Environmental Impact Statement for the McNary-John Day Transmission Line Project. This document adequately addresses our [Corps] concerns at this level of completion. There may be some specific issues to be addressed during future real estate transactions. [LTR 012]*

Response: Thank you for taking the time to comment. Bonneville will continue to work with the Corps as the project progresses.

Comment: *Please note that the BLM is not completely finished in its review of the DEIS. We will provide additional comments to Bonneville by May 3, 2002. [LTR 007]*

Response: We look forward to your comments.

Comment: *We have two (2) lines existing on our property. [PS]*

Response: Comment noted.

Comment: *Concerned about the wind near Horse Heaven. [PS]*

Comment: *Where is the Horse Heaven Wind Project interconnecting? [PS]*

Response: Please see our website for Horse Heaven (<http://www.bpa.gov>, look for *Environmental Analysis, Active Projects*), or contact Kimberley St. Hilaire at 503/230-5361 for more information on this wind project.

Comment: *Benton County Planning to put in new road near Mercer Ranch site. (from Crowe Butte up to road that connects to Alderdale Road) [PS]*

Response: Comment noted.

Comment: *Has anything changed with the project since the DEIS was issued? [PS]*

4 Responses to Comments

Response: The general project is the same. Please see this final EIS for any updates.

Comment: *We've sustained power rate increases for irrigation. [RS]*

Response: Comment noted.

Comment: *Used early study ~ The EIS referred to 1995-93. [RS]*

Response: Detailed documentation of the resources and impacts along the proposed transmission line was made during studies conducted during 2001 and 2002. This documentation included literature review, aerial photograph review and interpretation, and field surveys. Data and resource information were presented in GIS and in a detailed resource data base. While there was some reliance on information for other studies, a majority of the detailed resource information was derived from the aquatic resource, wetlands, wildlife, cultural, land use, and vegetation field surveys conducted during 2001. Impacts were quantified using GIS analysis.

Comment: *Landowners need one contact person in Bonneville. [RS]*

Response: Comment noted. Bonneville apologizes if there seem to be many players involved. Whoever you contact within Bonneville will ensure that the appropriate person for your particular question gets back to you.

Comment: *John Farmer, edges of irrigated fields have been GPS'd. [RS]*

Response: Comment noted.

Comment: *Cut out the repetition in the draft EIS. [RS]*

Response: Bonneville apologizes for any repetition. Often information has to be repeated in order to give context to the analysis being discussed.

Comment: *You get kind of sore from being screwed by the government. [RS]*

Response: Comment noted.

Comment: *How many Wind Generation Towers are on the Stateline Project? And, How many miles are involved? [RS]*

Response: Bonneville is no longer involved with the Stateline Wind Project. Please see our website at (<http://www.bpa.gov>, look for *Environmental Analysis, Active Projects, Stateline*).

Other Comments and Responses

Comment: *Are you going to have to replace the towers wiring out of the Aluminum plant? They're rusty! [RS]*

Comment: *Are you going to replace the existing towers outside the aluminum plant? They appear very rusty, towers are further away and appear galvanized. [RS]*

Response: The existing towers near the aluminum plant will not be replaced as part of this project. It is not uncommon for towers located near an industrial site to have galvanizing problems. Bonneville's maintenance crew will keep an eye on them to ensure they remain structurally sound.

Comment: *In Benton County we don't allow billboards so as not to interrupt the view of the River. [PS]*

Response: The lack of billboards is noticeable and does increase the ability to view the river from the highway.

Chapter 5

Comment Letters

Log No.	Name	Affiliation/State
MJDT-001	Florence Caplow	Washington Natural Heritage Program
MJDT-002	Jeff Ulman	Superior Electric
MJDT-003	Tanya Sommer	Bureau of Reclamation—Lower Columbia
MJDT-004	Jeff Van Pelt	Confederated Tribes of the Umatilla Indian Reservation
MJDT-005	Virginia Howard	Oregon
MJDT-006	John Farmer	Washington
MJDT-007	Joseph Buesing	U.S. Department of Interior Bureau of Land Management
MJDT-008	Judith Leckrone Lee	EPA Geographic Implementation Unit
MJDT-009	Virginia Howard	Oregon
MJDT-010	Troy Suing	Washington State Department of Transportation
MJDT-011	Paul E. LaRiviere	Washington Department of Fish and Wildlife
MJDT-012	Robert E. Willis	U.S. Army Corps of Engineers
MJDT-013	Ron Power	Washington
MJDT-014	Mary Carol Douglas	Washington
MJDT-015	Leon Fuhrman	Washington
MJDT-016	Jay Osborne	Washington
MJDT-017	Sheryl Rash	Washington
MJDT-018	Darlene Hunter	Washington
MJDT-019		Public Meetings Draft EIS Comments

5 **Comment Letters**



WASHINGTON STATE DEPARTMENT OF
Natural Resources

RECEIVED BY BPA
PUBLIC INVOLVEMENT

LOG#: *MJDT-001*

DOUG SUTHERLAND
Commissioner of Public Lands

RECEIPT DATE:

MAR 26 2002

March 18, 2002

BPA
COMMUNICATIONS KC-7
PO BOX 12999
PORTLAND OR 97211

Re: McNary-John Day Transmission Line Project, Draft Environmental Impact Statement **TNP-TTP 3**

The Washington Natural Heritage Program has reviewed the draft EIS for the McNary-John Day Transmission Line Project, and we have found serious deficiencies in the Special Status Plants portion of the document (pages 3-40 and 3-41).

- 1) The July survey time is inappropriate for ALL of the potential species in the project area. Northern wormwood is identifiable in late April and early May. Ute ladies' tresses is identifiable in late July through September, but one July survey is not enough to rule out the possibility of the presence of the species (see Section 7 guidelines for Ute ladies' tresses). All of the state sensitive species are identifiable from late April through early June at the latest. In other words, none of these special-status plants would be found during a July survey, so asserting that "neither species was found during field surveys" is not biologically significant. For more information on flowering times, see our website at <http://www.wa.gov/dnr/htdocs/fr/nhp/wanhp.html>.
- 2) We do not identify "potential habitat" for state sensitive species. We do identify known populations, and it appears that there are known populations in our database of both Pauper's milkvetch and Snake River cryptantha from the project corridor. The language used is misleading and inaccurate.
- 3) *Lomatium laevigatum* (smooth desert parsley) also occurs within ¼ mile of the transmission line corridor, and was not included in the surveys.
- 4) There is insufficient discussion of methods in this section. Was the entire project area surveyed, or just the areas with potential for the species above? On what specific days in July did surveys take place? Survey dates are significant for rare plant surveys. Did a qualified botanist conduct the survey? Was a full species list compiled?

This portion of the Columbia River is one of the most diverse areas in the state, with a high potential for rare plant populations. Our recommendation would be to reject the findings for special-status plants altogether, and to require another survey, with, at a minimum, the following methodology:

- a) the development of a thorough list of potential species,
- b) surveys undertaken by qualified botanists with experience in eastern Washington rare plant surveys,
- c) Section 7 guidelines for Ute ladies' tresses followed properly,

1111 WASHINGTON ST SE ■ PO BOX 47000 ■ OLYMPIA, WA 98504-7000

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RECYCLED PAPER

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● Page 2

March 18, 2002

- d) surveys undertaken at the proper time of the season for each potential rare plant species , which may require more than one survey in selected sections of the project area,
- e) surveys completed for all portions of the project area that still support native vegetation,
- f) a full species list compiled for the project area,
- g) a full description of survey methodology included in the final EIS.

Thank you very much.

Sincerely,



Florence Caplow

Botanist
Washington Natural Heritage Program

Florence.Caplow@wadnr.gov
360-902-1793

Kuehn, Ginny -KC-7

From: Jeff Ulman [JUlman@MICHELS-USA.com]
Sent: Tuesday, March 26, 2002 5:47 AM
To: comment@bpa.gov
Subject: 500 kilovolt transmission line

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: <i>MJD-T-002</i> RECEIPT DATE: MAR 26 2002

Hello,

We would be happy to be involoved in the construction of the McNary-John Day Project... could you put me in contact with the appropriate people.

Thanks,

Jeff Ulman - Superior Electric

902-720-5206 x3113

Kuehn, Ginny -KC-7

From: Tanya Sommer [TSOMMER@pn.usbr.gov]
Sent: Monday, April 22, 2002 11:42 AM
To: comment@bpa.gov
Subject: McNary-John Day EIS comment

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: <i>MJD-T-003</i> RECEIPT DATE: APR 22 2002

The BPA is proposing to build an additional transmission line from the McNary Substation to the John Day Substation because the current transmission lines are at capacity and power demands are greater than the current transmission lines can accommodate. The proposed 79 mi long 500 kV transmission line is to be constructed mostly in existing right-of-way. The proposed alternatives in the draft EIS do not appear to have the potential to negatively affect Bureau of Reclamation projects or facilities.

Tanya Sommer, biologist
Bureau of Reclamation - Lower Columbia Area Office
825 NE Multnomah Street
Suite 1110
Portland, OR 97232

503-872-2795
tsommer@pn.usbr.gov



CONFEDERATED TRIBES
of the
Umatilla Indian Reservation
Department of Natural Resources
**CULTURAL RESOURCES
PROTECTION PROGRAM**
P.O. Box 638
73239 Confederated Way
Pendleton, Oregon 97801
Area code 541 Phone 276-3629 FAX 276-1966



April 23, 2002

Bonneville Power Administration
Communications Office-KC-7
Post Office Box 12999
Portland, Oregon 97212

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: <i>MJD T-004</i> RECEIPT DATE: <i>APR 23 2002</i>
--

Dear Bonneville Power Administration:

The following are the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Cultural Resources Protection Program's (CRPP) comments regarding the McNary-John Day Transmission Line Project Draft Environmental Impact Statement (DOE/EIS-0332).

We would like to begin by noting that these comments are preliminary and that it is impossible for us to comment on the effects this proposed project will have on cultural resources prior to the publication of the cultural resource survey report prepared for this project. We understand that Jones and Stokes has encountered problems beyond their control in the production of that report, but we wish to be clear that the BPA will need to provide us with an adequate opportunity to comment on that report.

Our initial reaction to the cultural resources sections is that they exclusively focus on Washington. The majority of the project is in the state of Washington, but both ends are in Oregon. The scales of the maps in the draft EIS are such that we cannot tell whether the proposed transmission line will go through known sites in Oregon. Presumably, the cultural resource report will clarify matters. The fact that the Recent Recorded History section does not talk about the cities of Umatilla, McNary, or Rufus, Oregon, the railroad on the Oregon side, or Interstate 84 when the proposed line seems to relate to each is disappointing. We were also surprised to see the main reference to Lewis and Clark was to their stay in Wishram, considerably downstream from the project area, rather than to their visit to Plymouth Island, Blalock Island, or the like.

It is not clear from the Tribal Oral History section whether Jones and Stokes has yet to receive reports from the Warm Springs and the Yakama Nation or if they have decided to only summarize the CTUIR's report. On page 3-77 there is what appears to be a quote from a report by Catherine Dickson that refers to the CTUIR's traditional cultural properties. This quote is actually from a report by Teara Farrow.

The most important part of the cultural resources section of the draft EIS is the mitigation measures. It is unclear when a cultural resource monitor will be present. Will it be during the construction of all new roads and towers, certain new roads, and/or certain towers? Who will make that decision? We would like to remind the BPA that on previous projects where you have agreed to have a cultural resource monitor present, there have been considerable communication difficulties and often the project has taken place

without the monitor. We hope the BPA will ensure that such a problem will not be encountered on this project.

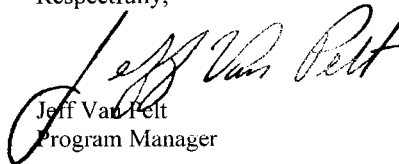
It is apparent that new roads will be constructed as part of this project and presumed that existing roads may be improved. Will the BPA take any measures to ensure that these roads are not accessible to the public? Otherwise increased numbers of people may be able to reach some of these formerly remote sites.

On page 3-84, the draft EIS states, "Of the 14 [newly recorded] cultural resource sites found, 12 require avoidance and two sites require avoidance." Presumably this should match the statement on page S-23, "Of the 14 cultural resource sites found along the corridor, 12 require avoidance and two sites should have cultural resource monitors during construction excavation." The next sentence on page S-23 is, "Of the 10 previously documented cultural resource sites along the corridor, nine require avoidance and one site requires a cultural resource monitor during construction excavation." Back on page 3-84, the corresponding sentence adds a clause: "one site requires avoidance plus a cultural resource monitor during construction excavation." Will the tenth site be avoided or not? Without knowing the character of any of the previously recorded sites or which newly recorded sites will not be avoided, it is impossible to comment on the adequacy of the mitigation measures. Certainly it will not be acceptable for ground disturbing activities to take place in and around Site G, an ethnographic/ethnohistoric cemetery. Does the BPA plan to treat all of these sites as if they are eligible for inclusion in the National Register of Historic Places or will the cultural resource report make recommendations on determinations of eligibility? We are also concerned about the newly recorded sites within existing roads. How will these sites be protected from further damage?

Finally, on page 3-86 under Unavoidable Impacts Remaining after Mitigation, "In the absence of a programmatic agreement, any discovered cultural resources could be subject to mitigation through data recovery." We would like to be clear that we do not support total data recovery except as a last resort.

We look forward to your response to these preliminary comments and to the opportunity to comment on the cultural resource report. If you have any questions, please feel free to contact me or Catherine Dickson, Archaeologist, at (541) 276-3629.

Respectfully,



Jeff Van Pelt
Program Manager

JVP/ced

cc: Robert Whitlam, Washington State Archaeologist
Leland Gilson, Oregon State Historic Preservation Office Archaeologist
Stephen Tromly, Bonneville Power Administration Archaeologist
Armand Minthorn, Cultural Resources Committee Chair
Terry Shepherd, Open and Unclaimed Lands Policy Analyst

TREATY JUNE 9, 1855 ♦ CAYUSE, UMATILLA AND WALLA WALLA TRIBES

5 Comment Letters

BPA F 1325.09e
(01-1999)
(Previously OF 271)

U.S. DEPARTMENT OF ENERGY BONNEVILLE POWER ADMINISTRATION CONVERSATION RECORD

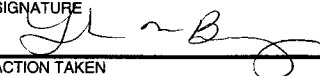
Electronic Version Approved
by CIL - 01/05/1999

LOCATION OF VISIT/CONFERENCE		TIME 11:15	DATE (MM/DD/YYYY) 4/22/02	
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU Virginia Howard Land Owner		ROUTING		
		NAME	ORG. CODE	INITIALS
ORGANIZATION/OFFICE		TELEPHONE NUMBER (520) 325-0221	<input type="checkbox"/> Visit <input type="checkbox"/> Conference <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Incoming <input type="checkbox"/> Outgoing <input checked="" type="checkbox"/> Other (Specify) Returned phone call	
SUBJECT McNary - John Day		RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: m J D T - 005 RECEIPT DATE: APR 24 2002		

SUMMARY

owns property in Sherman County east of Rufus and Scott Canyon Rd. If construction is done in the fall can she be compensated for hunting revenue? Wanted to know if the line would be north of existing lines concerned about interfering with plans for a home overlooking the Columbia River. Looks like the line location does not interfere with land use

ACTION REQUIRED

SIGNATURE 	TITLE Project Engineer	DATE (MM/DD/YYYY) 4/22/02
ACTION TAKEN		

SIGNATURE	TITLE	DATE (MM/DD/YYYY)
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FILE CODE: N/A
RETENTION: N/A

U.S. DEPARTMENT OF ENERGY
BONNEVILLE POWER ADMINISTRATION
CONVERSATION RECORD

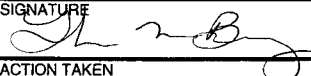
Electronic Version Approved
by CIL - 01/05/1999

LOCATION OF VISIT/CONFERENCE		TIME 10:00	DATE (MM/DD/YYYY) 4/4/02	
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU John Farmer		TYPE <input type="checkbox"/> Visit <input type="checkbox"/> Conference <input checked="" type="checkbox"/> Telephone <input checked="" type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing <input type="checkbox"/> Other (Specify)	ROUTING	
			NAME	ORG. CODE INITIALS
ORGANIZATION/OFFICE TNLC-3		TELEPHONE NUMBER 6313	RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: MJD-006 RECEIPT DATE: APR 24 2002	
SUBJECT McNary - John Day				

SUMMARY

He is concerned about the option that would relocate all the lines around the Indian Allotment in Mile 32. He would like to meet w/me so he could see what it would look like on the ground. He would also like to know if he will have to move the wind machines that are currently located south of the existing corridor. He said, "If this is a matter of who is the bigger pain in the ass, I can remedy that."

ACTION REQUIRED

SIGNATURE 	TITLE Project Engineer	DATE (MM/DD/YYYY) 4/4/02
ACTION TAKEN		

SIGNATURE	TITLE	DATE (MM/DD/YYYY)
-----------	-------	-------------------

FILE CODE: N/A
RETENTION: N/A



IN REPLY REFER TO

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Spoilane District Office
1103 N. Panache
Spokane, Washington 99212-1275

RECEIVED BY BPA
PUBLIC INVOLVEMENT
LOG#: MTOT-007

RECEIPT DATE: MAY 01 2002

1793
2800 (130)
WAOR 57168

April 22, 2002

Lou Driessen, Project Manager
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

Dear Mr. Driessen:

This is sent to provide comments on the draft EIS for the McNary-John Day Transmission Line Project (DOE/EIS-0332). The Bureau of Land Management is a formal cooperator for this EIS.

Under the proposed action, it appears that at least three tracts of BLM public lands would be crossed by the transmission line. Additional tracts of BLM lands, withdrawn by the U.S. Army Corps of Engineers, appear to be crossed (under the terms of an existing MOU, BLM has certain management responsibilities for the COE withdrawn lands, including the granting of rights-of-way unrelated to COE's project). However, because the DEIS maps are a small scale, it is difficult to determine for sure which tracts would be affected by the new transmission line. In order to permit meaningful review of the proposal, higher detail maps need to be included in the document or provided directly to BLM. The maps should clearly show the BLM and COE tracts potentially affected by the transmission line project. We recommend that these maps have a scale of 1:50,000 or better. The maps should include contour lines, and proposed tower and access road locations, if possible.

BLM has not yet received specific resource inventory reports for archaeology and vegetation surveys (including both rare plants and noxious weeds). From the discussion in the DEIS, it appears that not all of the inventories have been completed. These reports are necessary to adequately assess impacts of the project. Without them, both the affected environment and environmental consequences sections of Chapter 3 are incomplete. Prior to writing the Final EIS, these inventories must be completed and the reports provided to BLM for review. As

-1-

discussed below, in order for the rare plant inventories to have validity, it is essential they be performed at the correct time of the year. The BLM also needs to receive copies of any Biological Assessment(s) prepared for the project.

The BLM has the following concerns or comments on specific sections of the DEIS:

Chapter 3. Vegetation Section:

To provide better understanding, the EIS could provide a table listing potential special status plant species, their habitats, and appropriate timing for field observation.

The DEIS states that the U.S. Fish and Wildlife Service (FWS) notified BPA that potential habitat could be present along the transmission line corridor for Ute ladies'-tresses (listed as Threatened) and for northern wormwood (candidate for listing). The Washington Natural Heritage Program (WNHP) provided information that potential habitat could be present for three species ranked as Sensitive in Washington: Pauper's milk-vetch, Snake River cryptantha, and Piper's daisy.

Although these species are potentially present in the project area, the field survey was conducted at an inappropriate time of the year. The July 2001 survey period reported in the DEIS is not a proper time to search for the plants listed above. Ute ladies'-tresses flowers in August through September, and technical characters of the flower are needed for identification. Northern wormwood flowers in April, and the involucre (structures surrounding the flowers) are important in distinguishing it from related members of the same genus. Pauper's milk-vetch flowers from April to mid-May, and the WNHP Rare Plant Guide states that "by late June all fruits are mature and plants fall into dormancy." Snake River cryptantha blooms in May and June, and flowers would not be present in July, although the plant may be recognizable in July by someone who is familiar with its appearance. Piper's daisy flowers in May and possibly into June, but it is a compact plant and the aboveground structures could have dried up by July. Identification of this plant involves looking at hairs present at the bases of the leaves.

The degree of disturbance that has already occurred along the transmission line route makes it less likely that a number of these species would be present. However, BLM has located Piper's daisy on several disturbed sites in Benton County; at one site the plant was most common along a buried pipeline route, and at another site the plant was found along a 4WD trail and adjacent to a fence line. Based on these finds, it appears this plant is tolerant of some disturbance. BLM has located Snake River cryptantha on sites that have been heavily grazed, as well as within and adjacent to 4WD trails.

Appendix C (Common and Scientific Names of Plants in Study Corridor) is confusing. The DEIS states that none of the plant species listed above were found in the surveys, yet all five of these plants are included in the list in Appendix C. We suspect they were listed

erroneously, but this should be clarified in the final version of the EIS. The confusion might be clarified by changing the title of the appendix to reflect what the list of plants actually represents (ex: List of Plants That Could Potentially Occur in the Study Corridor). Another suggestion is to change the title to "A List of Plants Identified as Occurring in the Study Corridor." In this case, you would need to delete the names of five plants now listed in the appendix that have not been located in the study corridor (northern wormwood, panper's milvetch (sic), piper's daisy, Snake River cryptantha, and Utes ladies' tresses).

Chapter 3. Cultural Resources Section:

The DEIS refers to field surveys conducted for the project area (page 3-81), but an inventory report has not been submitted for BLM review. The information provided is insufficient to verify the area of potential effect (APE) identified, and the level and extent of inventory conducted for it. A complete inventory report is required to determine the adequacy of the inventory to meet Section 106 requirements of the National Historic Preservation Act. Maps of the identified APE and the area inventoried are needed.

The cultural resource inventory reports should include maps and justification of the APE and inventory boundaries, and address the following questions: Were BLM lands inventoried? Did the contracting firm receive the required permits to conduct cultural inventory on federal lands? What level of inventory was conducted? Were sites located on BLM administered lands? Will the sites be avoided by the proposed project? Which sites would be monitored and what criteria used for site selection? What are the proposed buffers around sites that would be avoided? Why is a portion of the corridor planned for re-survey under contract with the Yakama Nation?

The DEIS reports that consultation was conducted with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), the Yakama Nation and the Confederated Tribes of the Warm Spring Reservation. Ten Traditional Cultural Properties (TCPs) were identified through consultation with the CTUIR Cultural Resources Protection Plan. Are the identified TCPs within the APE? Have boundaries and supporting documentation been completed for the TCPs? Is future consultation and resurvey with the Yakama Nation expected to identify additional TCPs? Has the eligibility of the properties been determined in consultation with the Native American Tribes, the Washington State Historic Preservation Office (SHPO), and, if located on federal lands, the responsible agencies? Will the proposed project alternatives affect eligibility of the TCPs to the National Register or affect Native American access or use of the TCPs? Documentation and maps of the TCPs are needed to identify the location of the properties relative to the project, thereby permitting review of the contractors assessment of effects to these properties.

The mitigation section (page 3-85) lists consultation with Umatilla Tribes and the Yakama Nation regarding site monitoring, and for establishing consultation protocols for site mitigation and management. Why is The Warm Springs Tribe not mentioned? In instances

of unanticipated finds, the text states that the tribes would be contacted. Neither SHPO nor the land management agencies are mentioned in this context. For public lands, both SHPO and BLM should be contacted in the event of inadvertent discovery of cultural resources. Similarly, consultation should be conducted with the tribes, SHPO, and BLM for cultural properties located on BLM administered lands.

Under the "Impacts During Construction" heading on page 3-84, the last sentence of the first paragraph states that "Cultural resource monitors could be provided,..." Under what conditions would a monitor be employed in ground disturbing activities? The second sentence in the second paragraph states "Of the 14 cultural sites found, 12 require avoidance and two sites require avoidance." This should be corrected.

The fourth bullet under the mitigation heading on page 3-85 should be clarified.

Under the "Impacts During Operation and Maintenance," heading on page 3-86, the last sentence in the first paragraph indicates review would be required if any maintenance activities need to occur outside of the tower locations or off access roads. More detail is needed on the type of review that would take place. Is consultation with tribes, SHPO or federal land management agency to be conducted as part of the review?

Besides the cultural section in Chapter 3, we noted that the DEIS summary section (page S-23, second paragraph) indicates that two recently documented sites and one previously documented site require monitoring during construction excavation. Would these sites be avoided as indicated on page 3-84? Will the TCPs be avoided? Have effects to the TCPs been identified and are the mitigation elements identified on page S-24 adequate to mitigate these effects?

Other Comments

We noted a discrepancy between the width of disturbance expected on the access roads for the transmission line. On page 2-7 under the "Access" heading, it says that a "20-foot-wide total area" would be disturbed; on page 3-25, under "Access Roads," it says the approximate impact area would be 25 feet wide.

Prior to the completion of the final EIS, it is essential that a meeting be scheduled between BPA and BLM to discuss the project. We also need to discuss the BLM's realty requirements for authorizing the project. The BLM's records show a 44 LD 513 authorization for the McNary-Big Eddy transmission line on a number of the tracts to be crossed by the current project. It is not evident from our files whether BPA has one or two existing powerlines within this right-of-way. Depending on the existing situation, the BPA will either need to amend its existing authorization or obtain a new right-of-way. In either case, a plan of development would be required for the new transmission line.

5 Comment Letters

McNary-John Day Transmission Line EIS

Please note that the BLM is not completely finished in its review of the DEIS. We will provide additional comments to BPA by May 3, 2002. If clarification is needed regarding the above comments, please contact Kathy Helm at 509/536-1200.

Sincerely,



acting for
Joseph R. Bluesing
District Manager

cc: Kathy Helm, Spokane District Office
Eric Stone, Oregon/Washington State Office (OR 933)
Bill Schurger, Wenatchee Field Office



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

RECEIVED BY BPA
LOG#: <i>MJNT-008</i>
RECEIPT DATE: <i>MAY 02 2002</i>

Reply To
Attn Of: ECO-088

MAY - 1 2002

01-033-BPA

Stacy Mason
Bonneville Power Administration
P.O. Box 3621-KEC
Portland, OR 97208-3621

Dear Ms. Mason:

We have reviewed the draft Environmental Impact Statement (EIS) for the proposed *McNary-John Day Transmission Line Project* (CEQ #020083) in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. The draft EIS examines the proposed construction of a new 500-kilovolt transmission line parallel to existing Bonneville Power Administration (BPA) transmission lines from the McNary Substation to the John Day Substation, a distance of approximately 79 miles.

We have rated the EIS, EC-2 (Environmental Concerns- Insufficient Information). We have environmental concerns with the project due to the large information gaps found throughout the document. In addition, the organization and content of the EIS appears inconsistent with NEPA regulations which direct federal agencies to use NEPA procedures to ensure that 1) environmental information is available to public officials and citizens before decisions are made and before actions are taken (40 CFR 1500.1(b)) and 2) the EIS is supported by evidence that agencies have made the necessary environmental analyses (40 CFR 1500.2(b)).

The draft EIS begins by describing BPA's responsibility for purchasing, developing, marketing, and transmitting electrical power to utility, industrial, and other customers in the Pacific Northwest. We believe that the EIS requires additional supporting information indicating 1) if the need for additional power in the Pacific Northwest exists now and would be needed in the future, and 2) if so, to what extent would power transmitted via the proposed line serve Pacific Northwest customers versus customers outside the Region. We find this information necessary in light of information found in the recent EIS for *Irene and Anderson Creek Projects* (FERC 2002) that indicates that reserve capacity as a percent of firm peak summer demand in the Western Systems Coordinating Council region is projected to increase from 22.4 percent in 2001 to 46.7 percent in 2008, falling to 36.8 by 2010. Moreover, the broad purpose and need statement of meeting energy demands in the Pacific Northwest does not answer questions of why the need to generate and deliver power in the Pacific Northwest should be addressed by constructing a transmission line specifically between McNary and John Day substations (i.e., the EIS should answer the question "why here" and "why now"). This question is especially relevant because BPA is concurrently proposing the construction of multiple transmission lines without explaining how the individual projects would address the larger need. This information should be included in the EIS.



5 Comment Letters

The alternatives section effectively presents one action alternative and the No Action alternative. While the EIS presents slight variations in the alignment and presents each set of changes as different alternatives, these small changes do not sharply define the issues and provide a clear basis for choice among options by the decisionmaker and the public as required by NEPA (see 40 CFR 1502.14). This is especially true when larger systemic alternatives exist such as demand management, distributed generation, interruptible/curtailable rates and transmission pricing solutions as well as the possible rerouting of electricity in the grid through other transmission lines. The EIS presents the No Action alternative in a very cursory fashion using two sentences and does not include it in tables for comparing the effects of alternatives. The EIS should discuss and evaluate the No Action alternative in greater detail and include it for comparison purposes as directed by the NEPA regulations (40 CFR 1502.14). The purpose and need or alternatives sections should also include the rationale for limiting the scope of the project to the proposed transmission line between termini at the John Day and McNary substations versus extending it, possibly between the proposed Wallula power project and McNary substation since an additional line is proposed there.

The affected environment, mitigation measures, and environmental consequences sections of the draft EIS are more characteristic of a programmatic EIS than the site-specific one required for this project with 1) broad, general descriptions of most affected resources rather than site-specific baseline and project information, 2) a conditional list of mitigation measures without an indication of their applicability, where they would be applied, or their effectiveness, and 3) a general and cursory assessment of the expected effects. We were surprised that the EIS presents a cursory description of the affected environment given that BPA has operated the corridor where the transmission line is proposed for years. The lack of information suggests that BPA has not historically monitored resources in the corridor. The little detailed information on resources presented in the EIS is largely derived from existing data that other agencies collected. The lack of site-specific project information, such as the proposed location of the transmission line towers, access roads, and staging areas also indicates that BPA has not conducted fundamental project surveys.

The EIS lists numerous best management practices and mitigation measures without providing a context for them. Our enclosed detailed comments reference multiple instances where the EIS does not indicate if or where proposed mitigation measures would be implemented and the effectiveness of identified measures. Understandably, the lack of site specific information on resources, project elements, and mitigation measures results in an inconclusive evaluation of the environmental consequences of the project. Moreover, conclusions in the EIS that the proposed project's effects to resources are insignificant appear unsupported.

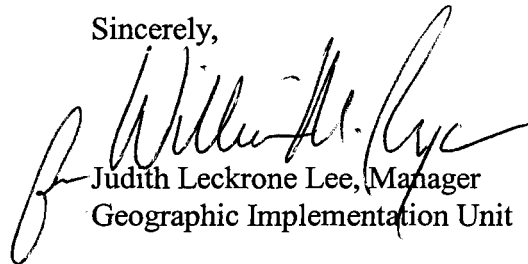
Finally, the EIS contains little discussion of the predicted cumulative impacts from the project. Consistent with the Council on Environmental Quality's guidance entitled *Considering Cumulative Effects under NEPA*, we recommend that the cumulative impact section be resource-based rather than project-based and that this section look at a range of impacting projects that extends beyond a sole focus on power projects. Additionally, in light of the little information in

the EIS on the affected environment, the document should include a monitoring plan that identifies monitoring objectives (e.g., implementation of mitigation measures or effectiveness of mitigation measures), states how monitoring would be carried out and data used, and lists appropriate mitigation measures to employ if monitoring reveal unsatisfactory environmental effects.

In conclusion, proposing to place a new transmission line in an existing transmission line corridor would appear to minimize impacts. NEPA, however, requires BPA to take a hard look at the elements of the proposed project including the need for the project, a full range of reasonable alternatives (including those outside the jurisdiction of the lead agency if appropriate), a site-specific discussion of mitigation measures and their effectiveness, and a sufficient discussion of the affected environment and environmental consequences so that the decisionmaker and public can contrast and compare alternatives. EPA additionally recommends a monitoring strategy for resources that provides a feedback loop for correcting project effects deemed to be unacceptable.

Our rating and a summary of our comments will be published in the *Federal Register*. A copy of the rating system used in conducting our review is enclosed for your reference. Thank you for the opportunity to review this draft EIS. If you would like to discuss these issues, please contact Chris Gebhardt at (206) 553-0253.

Sincerely,



Judith Leckrone Lee, Manager
Geographic Implementation Unit

Enclosures

cc: Yakama Nation
Colville Tribe
U.S. Fish and Wildlife Service
National Marine Fisheries Service

EPA Detailed Comments on the Proposed McNary-John Day Transmission Line Project

The EIS should list and describe all power production and environmental laws applicable to this project.

Page S-1 - The EIS states that Bonneville is facing two problems regarding power flow on the Federal Columbia River Transmission System (FCRTS): there is not enough electricity being generated to meet demand, and many of Bonneville's transmission lines are now at capacity and cannot carry more power. The draft EIS issued by the Federal Energy Regulatory Commission for the proposed Irene Creek and Anderson Creek Hydroelectric Projects in the Skagit River Basin states that "although energy shortfalls occurred in the Western Systems Coordinating Council region in 2000-2001, reserve capability as a percent of firm peak summer demand is projected to increase from 22.4 percent in 2001 to 46.7 percent in 2008, and falling to 36.8 by 2010." This statement is consistent with the slowing influx and the slowing economy in the west coast cities of Seattle and Portland. The EIS should include power need projections that demonstrate that building the proposed transmission line is needed to ensure power reliability. Moreover, the statement that many of Bonneville's transmission lines are now at capacity does not indicate that a transmission line, specifically the one between the McNary and John Day dam facilities is needed. The purpose and need statement in the EIS should explain "why here" and "why now".

Page S-3 states that some new right-of-way easements would need to be purchased adjacent to the existing corridor along approximately 14 miles of the route. The EIS should state if the owners of parcels proposed to be crossed by the transmission line have been contacted by BPA and whether tentative agreements have been reached. The EIS should also state how BPA will deal with owners refusing offers for right-of-way easements (e.g., by using alternative routes or exercising eminent domain). This information will help readers and the decision-maker understand the viability of option available to BPA in selecting the alignment of the proposed transmission line.

Page S-4 - The EIS should describe temporary staging areas (a map of their locations), their uses, and how they will be restored. EPA is concerned that the use of such areas for refueling or lubricating equipment might result in the contamination of the surrounding area (through fuel spills and stormwater runoff) and that these areas might not be fully restored.

Page S-4 - The EIS states that vegetation would be maintained along the line for safe operation and to allow access to the line. The EIS should summarize direction provided by the earlier *BPA Vegetation Management EIS* and apply that direction to the proposed transmission line. Specifically, the EIS should include a weed control management plan that utilizes Integrated Pest Management (IPM). EPA supports using manual, cultural, and biological alternatives over pesticides when possible because of the potential problems from the fate and transport of pesticides in the environment.

Pages S-5 and S-6 list alternatives. The range of alternatives is quite constrained with variations consisting of small alignment changes in four locations. Although EPA supports limiting environmental impacts by using an area that is already impacted, this does not excuse a lead agency from its NEPA responsibility of exploring a full range of alternatives. Noticeably lacking from the alternatives' analysis are options that go beyond changes in alignment such as demand management, distributed generation, interruptible/curtailable rates and transmission pricing solutions.

Page S-7 states that the overall cost of removing one of the existing lines and constructing a double circuit line would be much greater than constructing the single circuit line. The EIS should state if the benefit-cost analyses referred to in this sentence includes environmental costs. If not, the EIS should incorporate environmental costs in the analyses of overall costs. In addition, we recommend that the EIS reexamine this alternative because it would appear to minimize the footprint of environmental impacts. This would be consistent with NEPA's requirement to minimize impacts.

Page S-9 describes cropland, grazing, and upland areas impacted by the project. The EIS should also state the acres of wetlands impacted by action alternatives.

Page S-9 identifies the following mitigation measures: coordinate with landowners for farm operations, including plowing, crop dusting, and harvesting. It is presumed that this mitigation measure would minimize airborne pollutants, however, timing these activities could also minimize spikes in non-point source water pollution. The EIS should indicate the resource or resources that this measure is helping to protect.

Page S-9 does not describe how BPA would control weeds around the base of the towers. The EIS should contain this information.

Page S-11 contains the following mitigation measure: avoid construction on steep slopes where possible. The EIS should define steep slopes, identify where steep slopes occur in the project area, and where construction on steep slopes could and could not be avoided.

Page S-11 contains the following mitigation measure: install appropriate roadway drainage to control and disperse runoff. The EIS should identify specific locations in the project area needing roadway drainage structures and the appropriate drainage structure(s) for each site.

Page S-11 contains the following mitigation measure: develop additional mitigation measures (using a certified engineer) between corridor miles 39 and 41 due to the presence of an active landslide in the vicinity of tower 40/3. A certified engineer should evaluate the active landslide area prior to completing the EIS and appropriate mitigation measures should be included in the EIS for the public and decision-maker to review. The EIS should identify appropriate site-specific mitigation measures.

5 Comment Letters

Page S-11 states that five of the 11 fish-bearing streams along the project corridor were found to have water temperatures in excess of 64.4 degrees F during the June 2001 surveys. The EIS should state what temperatures were measured. In addition, the EIS should also identify measures that BPA is using or could use to mitigate the impacts of high temperatures in these streams.

Page S-12 states that several common construction materials and petroleum products could be toxic to fish and other aquatic organisms if spilled into or near streams. A Spill Prevention and Contingency Plan should be included in the EIS and should state the spill risk, identify sources of toxic materials and environmental resources at risk, and mitigation measures.

Page S-13 contains the following mitigation measure: place towers outside of stream riparian areas and utilize natural landscape features to space the conductor over existing shrub and tree riparian zones and avoid cutting. The EIS should identify areas where proposed towers would need to be set in new locations to avoid stream riparian areas and to utilize natural landscape features to space the conductor over shrub and tree riparian zones and avoid cutting.

Page S-13 contains the following mitigation measure: avoid tower or access road construction on potentially unstable slopes where feasible. The EIS should identify these areas.

Page S-13 contains the following mitigation measure: install appropriate water and sediment control devices at all dry wash crossings, if necessary. The EIS should identify dry wash crossings needing water and sediment control devices and the appropriate water and sediment control device for each site.

Page S-13 contains the following mitigation measure: construct any required culverts using Washington Department of Fish and Wildlife culvert installation guide. The EIS should identify places where culverts would be installed, state the appropriate culvert size, and list mitigation measures to be used during installation.

Page S-14 contains the following mitigation measure: develop and implement a Spill Prevention and Contingency Plan to minimize the potential for spills of hazardous material. The EIS should contain the Spill Prevention and Contingency Plan and the environmental consequences section should predict the number and extent of hazardous material spills and impacts of these spills with implementation of the Plan.

Page S-16 contains the following mitigation measure: locate structures, new roads, and staging areas so as to avoid waters of the United States, including wetlands. The EIS should contain maps identifying the proposed locations of roads and staging demonstrating that they lay outside waters of the United States.

Page S-16 contains the following mitigation measure: anticipate and avoid, as required, contaminated soil, underground tanks, and orphaned wells during construction. The EIS should

identify these sites in the EIS and alter transmission line and road alignments, if necessary, to avoid these sites.

Page S-17 states that the proposed project would temporarily impact 24 to 27 acres of native plants and 4 acres of cryptogamic crusts and permanently impact 12 acres of native plants and 2 acres of cryptogamic crusts. The EIS should identify existing projects in the area that aim to restore or protect native plant communities and cryptogamic crusts, including those receiving BPA funding. If none exist, BPA should consider incorporating the restoration of native plant communities and cryptogamic crusts into the project design.

Page S-20 describes environmental consequences of the project on wildlife species. The section addresses in a cursory fashion the effect of the existing corridor and, to a lesser extent, the proposed project on habitat fragmentation. The corridor, access roads, and transmission lines serve as an obstacle to animals migrating through the area. The corridor and road likely deter terrestrial animals from crossing due to lack of cover, reduced forage and browsing opportunities for species, changes in wildlife migrations patterns, and occasional human activity in these areas. The EIS demonstrates that transmission lines act as a barrier to bird movement. We are concerned that transmission lines could separate the cliff nesting areas for bald eagles from the riverine areas where bald eagles hunt. In addition, the corridor creates edge effects which likely favor several bird and wildlife species. The EIS should discuss in greater detail the effect of the corridor, access roads, and transmission lines on habitat fragmentation and the creation of edge effects favoring some species.

Pages S-25 and S-26 discuss viewshed impacts. BPA should consider including maps that identify sections of SR14 where the proposed project would be visible.

Page S-31 describes the environmental consequences of the proposed project to air quality. The EIS does not examine the foreseeable future actions associated with building the power line. For example, are future gas-powered electricity generators more likely to be located close to the power line, thus concentrating impacts from air emissions. The EIS should discuss foreseeable future actions associated with this project.

Page S-32 states that "If helicopters are used to install the towers a wider range of residences could be affected." Because helicopters could potentially be used to install towers, the impact analyses in the EIS should reflect their use.

Page S-34 states that predicted field levels are only indicators of how the proposed project may affect the magnetic-field environment. They are not measures of risk or impacts on health. The latter is what NEPA requires. The EIS should contain the best prediction of health risks based on available information.

Page S-35 contains the following mitigation measure: crop dusting pilots planning to enter the area would take suitable precautions to avoid collision with the proposed transmission line. We

5 Comment Letters

recommend that this mitigation measure be rewritten to reflect an action that the lead agency could take (e.g., educate crop dusting pilots about the location of the proposed transmission line).

Table S-2 is difficult to read because the list of impacts run together and the font is small. We recommend that the table be enlarged with the impacts bulleted and possibly broken down by resources impacted. In addition, the table lacks the no-action alternative. The table should include this alternative to compare the impacts of the action alternatives, as required by the NEPA regulations.

Page 1-1 states that presently, Bonneville is facing two problems regarding power flow on the system: there is not enough electricity being generated to meet demand, and many of Bonneville's transmission lines are now at capacity and cannot carry more power. The EIS should discuss how the demand for electricity generation and transmission is determined.

Page 1-1 states that southeast Washington and northeast Oregon is a prime area for power generation because of sufficiency of wind or access to gas pipelines, as well as access to high voltage transmission lines. The EIS should describe how providing additional transmission infrastructure in the area could make the area additionally attractive for even more power generation and the cumulative impacts of concentrated transmission in this area.

Page 1-1 states that Bonneville has a statutory obligation to ensure that there is sufficient capacity and reliability in Bonneville's transmission line. The EIS should define sufficient capacity and reliability, state existing capacity and reliability levels, and identify the difference between the required capacity and reliability levels and existing levels.

Page 1-2 contains a sidebar discussion of the Need for Power which describes power plants coming on line. The EIS should list power projects scheduled to go on line, the power each proposed plant would develop, the chance that each proposal would go on line, and projections of the total power produced versus projected need for power.

Page 1-3 identifies the following as a decision to be made: Bonneville must decide whether or not to build the proposed McNary-John Day transmission line. The cursory level of treatment given to the No Action Alternative indicates that it is not an option given serious consideration: Tables S-2 and 2-1 do not lay out impacts resulting from implementation of the No Action Alternative and Chapter 2 describes the No Action Alternative in two sentences.

Page 1-3 states that if the decision is to build a new transmission line, Bonneville would determine the exact locations of the towers and access roads and choose among the mitigation measures identified in the EIS. The site-specific elements of the project need to be defined in the EIS in order to analyze the effects of constructing and operating the specific transmission line being evaluated in the EIS.

Page 2-1 states that the environmental review to provide Benton County PUD electrical service would be done at the time the electrical service is requested. The EIS should state the level of certainty that Benton County PUD would request electrical service. If Benton County PUD receiving electrical service is a reasonably foreseeable future action (e.g., a signed agreement already exist), the EIS should incorporate this proposed activity into the scope of the project, environmental studies supporting this activity should be completed prior to issuance of the final EIS, and, if appropriate, the alternative section should explain options associated with the hookup.

Page 2-5 and other pages in the EIS refer to a “bus work.” The EIS should define a bus work.

Page 2-9 describes the process for line planning and construction. The EIS should contain the results of surveys including 1) determinations of the profile of the ground, 2) the proposed locations for towers, roads, and staging areas, and 3) the required right of way.

Page 3-2 states that Bonneville is considering moving the entire corridor off tribal lands. The EIS should contain more information explaining why a significant part of the alternatives’ development focused on considering moving the corridor off tribal lands. Are tribal owners requesting that the transmission lines not cross their lands? Moreover, the EIS should identify which alternatives are more consistent with meeting federal tribal trust responsibilities.

Page 3-2 lists the following locations without explaining their nomenclature: 6/1, 7/2, 10/4, 22/3, 29/3, 30/1, 68/1, 68/5, and 69/4. The EIS, preferably in a sidebar, should explain the basis of this nomenclature or include a map of towers identified by this nomenclature.

Pages 3-6 and 3-7 states that Umatilla County’s zoning designation for the project corridor is F1, Exclusive Farm Use. A noncommercial utility facility is permitted outright in the F1, Exclusive Farm Use zone, and the proposed action thus would not be inconsistent with this designation. The EIS should define a noncommercial utility facility in this context. A transmission facility seemingly appears more of a commercial use than a residential or farm use.

Page 3-16 states that erosion rates would most likely return to their current level following construction if plants reestablished along the corridor, naturally, or through revegetation. The EIS should predict the time it would take for plants to reestablish themselves to the extent that erosion rates would return to natural levels, the level of soil loss in the interim, differences between existing vegetation and recolonizing vegetation, and potential mitigation measures including replanting disturbed areas and their effectiveness.

Page 3-17 contains the following mitigation measure: develop additional mitigation measures (using a certified engineer) between corridor miles 39 and 41 due to the presence of an active landslide in the vicinity of tower 40/3. The EIS should identify specific mitigation measures, predict the effectiveness of the mitigation measures, and predict the risks of mass movement and erosion with project implementation (including mitigation measures).

5 Comment Letters

Page 3-17 states that no unavoidable or adverse impacts to geology or soils are expected to remain following completion of the project if the mitigation measures and best management practices listed earlier are implemented. This conclusion appears unsupported since the EIS has not indicated if or where, and in some instances, what mitigation measures and best management practices would be implemented and the expected effectiveness of such actions.

Page 3-18 shows what fish species listed under the Endangered Species Act (ESA) are using the streams in the project area. The EIS should describe critical habitat for all listed species, the ESA process including Section 7 consultation, the consultation timeline, and a summary of biological assessments, especially conclusions about the likelihood of the proposed project adversely affecting listed species.

Page 3-21 states that since steelhead trout are a federally listed species and their distribution overlaps with both chinook and coho, the analyses of current conditions and potential impacts to this species also serve to describe all potential impacts to EFH. The EIS does not support this statement. The document should show life history and habitat similarities as well as similarities between the purposes of ESA and EFH before making this statement.

Page 3-23 generally discusses how the project could impact fish habitat through the transport of sediment and the removal of riparian habitat. The EIS talks about impacts such as how increases in sediment in low-velocity stream reaches can cover suitable spawning gravel, cause channel braiding, increase width:depth ratios, increase incidence and severity of bank erosion, reduce pool volume and frequency, and increase subsurface flow. The EIS does not state, however, to what extent these are problems in the project area or to what extent these would be problems with project implementation. The EIS should state this and support these conclusions with measurements of stream health including the parameters listed above and the amount of large woody debris and riparian vegetation. This information is especially important in streams identified as water quality impaired and containing sensitive and listed fish species.

Page 3-24 states that if areas cleared for tower footings were reseeded or naturally revegetated after construction, the potential for erosion and sedimentation would be less than if left as bare soil. The EIS should identify the location and the type and extent of reseeding and revegetating, and predict the reduced erosion and sedimentation for those sites.

Pages 3-24 and 3-25 describe numerous potential measures to mitigate construction impacts. For example, blasting should be avoided within 200 feet of fish-bearing streams or the road gradient should be 0%. The EIS should state proposed mitigation measures, describe where they would be implemented, and predict their effectiveness. The ROD should contain final commitments to implement such mitigation measures.

Page 3-26 states that Bonneville generally performs aerial inspections of transmission lines and access roads once a month. The EIS should state the overall condition of roads in the project area, problem areas in the road system, impacts from the problem areas, and the length of time to

fix road problems.

Pages 3-30 and 3-31 contains site-specific information about wetlands. The EIS should contain this level of information about other resources. A map of wetland resources in the project area would help the reader understand the location and extent of this resource.

Page 3-32 states that the construction of new access roads in association with the Hanford-John Day Alternatives B and C would potentially fill 0.1 acre of emergent wetlands. The EIS should describe the Clean Water Act Section 404 permitting process for this fill activity. We recommend that the EIS contain actions that compensate for the 0.1 acre filling, the removal of wetland buffer vegetation, and construction activities.

Page 3-34 states that erosion in areas of soil disturbance and vegetation removal could result in increased groundwater turbidity. The EIS should inform the reader of what areas are at risk, the level of that risk, possible levels of turbidity, and whether these levels are significant.

Page 3-35 describes potential impacts arising from the operation and maintenance of the proposed line due to the use of access roads for tower maintenance and vegetation clearing within the transmission line corridor. The EIS should describe what additional noxious weed control would be required due to areas being disturbed and the impact to water quality, vegetation, and wetlands functions from pesticides entering wetland systems.

Page 3-37 could include two additional mitigation measures at the site level (with estimates of effectiveness). These are to avoid using pesticides around wetlands and to pull weeds (i.e., mechanical control) prior to them developing seed heads.

Page 3-57 states that most nest sites for raptors occur on cliffs, although artificial structures such as power line towers are also used for nesting and perching. The EIS should state whether proposed or existing power lines towers could be and should be modified to enhance raptors' ability to nest on them.

Page 3-58 states that American white pelicans, a state-listed bird, are known to forage on islands located about 3 miles south of the project corridor. The EIS should describe to the south of where, along the 79-mile long project corridor, American white pelicans forage or include a map illustrating their location.

Page 3-59 states that during the spring 2001 surveys, four areas with burrows were identified in shrub-steppe habitat within the project corridor. If possible, the EIS should identify the animals using the burrows instead of listing all possible ones.

Page 3-60 states that there have not been any reports of sensitive-status reptiles in the project vicinity; however, suitable habitat is present for the following species. The EIS should report the results of surveys for reptiles in the project area.

5 Comment Letters

Pages 3-63 and 3-64 state that several 40- to 50-foot cottonwoods representing potential eagle perching habitat and located near the Corps' Wildlife Natural Area at the McNary Substation may need to be removed under the McNary Substation Alternative B to facilitate transmission line clearance. The EIS should state whether these trees can be moved to another location in the Corps' Wildlife Natural Area rather than being removed.

Page 3-64 should state if tower locations would impact burrowing owl burrow areas and if so, where towers would be relocated to avoid these areas.

Page 3-65 discusses impacts to passerines. This section should also discuss the impact of edge effect and habitat fragmentation from the existing and expanded transmission line corridor, especially how it can affect species composition.

Page 3-66 states that the project will require the construction of approximately 3 miles of new access road and 270 short spur roads, which would remove vegetation and wildlife habitat. We recommend that the EIS examine compensating for the loss of this land using land purchases or habitat enhancement projects.

Page 3-70 contains a very brief discussion of the avoidance of areas by wildlife. This section should additionally discuss wildlife avoiding the area because of a lack of cover and foraging and browsing plants. Page 3-70 states that raptors are often attracted to transmission towers to use them as nesting sites. The EIS should also recognize the use of transmission lines and towers as places where raptors perch to view the area for prey.

Page 3-73 contains the following mitigation measure: prior to construction, conduct raptor nest surveys of cliffs located within 0.25 mile of the right-of-way. EPA supports and NEPA requires information on the affected environment, however, data collection is not a mitigation measure. This information should already be included in the EIS to establish baseline information and determine project impacts.

Page 3-91 describes viewshed impacts from the proposed transmission line. The EIS should state whether those impacts would be significant or not.



Department of Energy

Bonneville Power Administration
1520 Kelly Place
Walla Walla, Washington 99362

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: <i>MJDT-009</i> RECEIPT DATE: <i>MAY 03 2002</i>

May 2, 2002

In reply refer to: TRF/Walla Walla

Virginia Howard
2345 E. Waverly
Tucson, AZ. 85719

Dear Mrs. Howard,

As per our telephone conversation of April 26, 2002, I am writing to confirm your concerns about the new John Day – McNary transmission line project. I understand that you have previously spoken with Lou Driessen, Theresa Berry and Sue Kinish. I am going to try to summarize your concerns:

1. You lease your land in the fall for exclusive rights to hunt. This project will disrupt this fall season, if, as you were told by Theresa Berry, construction will begin on your property about October of 2002. ***Does BPA have a mechanism in place for you to apply for loss of income due to the project?***
2. You indicated that you have been up to the easement area on your property in the past and found a BPA employee with a hunting rifle and in a BPA truck. You complained to the office at the dam with little result. ***What is BPA's policy concerning employees or contractors carrying guns on private property?***
3. You are concerned with noxious weeds on the easement especially star thistle. ***Does BPA have a policy that states that BPA will keep the easement free from noxious weeds?***

I am going to get the answers to these questions for you. I need you to send me the dates that your hunting contract begins and ends. If you have other questions or I do not fully express your concerns as stated above, please expand or add to this list.

I am enclosing an envelope for your reply and my business card. I look forward to hearing from you.

Sincerely,

/s/ Monica Stafflund 05/02/04

Monica Stafflund
Realty Specialist, Walla Walla

Enc: 1

cc:

Lou Driessen – TNP-TPP-3/Vanc
Theresa Berry – TNLC-TPP-3/Vanc
Sue Kinish – TRF-TPP-4/Vanc
Stacy Mason – KEP-4 - PDX
Official File – TRF/Walla Walla

MStafflund:alm:6304 (W:\tsrf\Acquisition\McNary-John Day\V-Howard.doc)

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: mJD T-010
RECEIPT DATE: MAY 03 2002

April 22, 2002

Bonneville Power Administration
P. O. Box 61409
Vancouver, WA 98666-1409

Attention: Lou Driessen, Project Manager

Subject: U.S. Department of Energy, Bonneville Power Administration
TNP-TPP-3, McNary-John Day Transmission Line Project
South Central Region
I-82, MP 131-132 (SR 14 to Columbia River) vicinity
SR 14, MP 152.24-180.77 (Benton/Klickitat County Line to I-82)
SR 221, MP 0.00 (SR 14 intersection) vicinity
Southwest Region
SR 14, MP 108.39-152.24 (John Day Dam to Benton/Klickitat County Line)

We have reviewed the proposed project, and have the following comments.

1. The proposed transmission line would cross three WSDOT-maintained highways: Interstate 82, State Highway 14, and State Highway 221.
 - I-82 is a fully-controlled limited access highway.
 - SR 14 is a partially controlled limited access highway. SR 14 west of the Benton County/Klickitat County line is in the Southwest Region of WSDOT.
 - SR 221 is a partially-controlled limited access highway in the immediate vicinity of the intersection with SR 14. North of the limited access area, SR 221 is a Class 1 Access Managed highway in the project area.
2. A Utility crossing permit is required for all highway crossings. Please contact the South Central Region Utilities Office to obtain the utility crossing permits. Please contact Jamil Anabtawi at (509) 577-1785.
3. The Bonneville Power Administration will need to coordinate any access to any project site with WSDOT's Area Maintenance offices (depending upon the location of the project site) for both construction and maintenance of the transmission lines.
 - Work or access in state rights-of-way in Benton County should be coordinated with the WSDOT South Central Region Area 3 Maintenance office. Please contact Tom Root at (509) 577-1933.

5 Comment Letters

- Work or access in state rights-of-way in Klickitat County should be coordinated with the WSDOT – Southwest Region. Please contact Bud Wall at (509) 773-4533.

Lou Driessen, BPA – McNary-John Day Transmission Line Project
April 22, 2002
Page 2

4. For any oversized or overweight hauls on WSDOT-maintained rights-of-way, the applicant must obtain the appropriate permit from WSDOT prior to transporting any of these hauls.

Thank you for the opportunity to review and comment on this proposed project. If you have any questions concerning our comments, please contact John Gruber at (509) 577-1636.

Sincerely,

Troy A. Suing, P.E.
Regional Planning Engineer

TAS: rh/jjg

cc: File #12, SR 82
Jamil Anabtawi, Utilities Engineer
Tom Root, Area 3 Maintenance Superintendent
Ed Pickering, WSDOT – Southwest Region
Tom Swafford, WSDOT – Southwest Region
Bud Wall, WSDOT-Southwest Region

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RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: <i>MJDT-011</i> RECEIPT DATE: MAY 14 2002
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State of Washington
DEPARTMENT OF FISH AND WILDLIFE
District 4 Office: 2620 North Commercial Avenue - Pasco, Washington 99301 - (509) 545-2014

May 8, 2002

Bonneville Power Administration
Attention: Stacy Mason
P. O. Box 3621-KEC
Portland, Oregon 97208-3621

Dear Ms Mason:

SUBJECT: NEPA -Draft Environmental Impact Statement - McNary - John Day Transmission Line Project; Bonneville Power Administration, Construct transmission line and associated access roads and water crossing structures, Benton, and Klickitat Counties, Washington.

The Washington Department of Fish and Wildlife (WDFW) has reviewed the above-referenced National Environmental Policy Act (NEPA) document and offers the following comments at this time. Other comments may be offered as the project progresses.

Fish Resource Impacts

The Draft Environmental Impact Statement indicates that there will be several stream crossings associated with both the new and the improved access roads proposed throughout the project. Hydraulic Project Approvals will be required for installation and maintenance of all proposed water crossing structures. There is insufficient information in the DEIS to determine if additional mitigation will be necessary for these projects, especially with regard to the 11 fish bearing streams which will be crossed by access roads.

We concur with the recommended mitigation measures within the DEIS that all towers are placed at least 200 feet from the ordinary high water line of fish bearing streams. We also support the use of existing water crossing structures whenever possible to avoid the need for new structures. The recommended application of BMPs within the DEIS for road construction and maintenance should be implemented to avoid sedimentation of fish bearing waters.

Permitting

Stacy Mason, BPA

May 8, 2002

Page 2

It appears from the general description of the project, that a Hydraulic Project Approval (HPA; Chapter 77.55 RCW, WAC 220-110) to be issued by WDFW, will be required for the project.

There is, however, insufficient project detail to determine specific conditions or mitigation to be placed on the project at this stage of the project development. We encourage you to seek involvement from WDFW on resource needs and typical project requirements to insure proper protection of fish life as you proceed with project design and development. Early involvement with WDFW will facilitate later processing of the HPA. Once final design plans are available, please submit a completed Joint Aquatic Resource Permits Application (JARPA) for an HPA, including complete plans and specifications, to WDFW for review.

The plans and specifications should be developed relative to the ordinary high water line. The drawings should accurately depict existing conditions including all prominent natural features and manmade improvements in the water and on the bank in the immediate vicinity of the project area. They should include plan and cross-sectional views of the proposed project, a vicinity map of the project area, and accurate directions to the project site. In addition, to aid us in locating the project site, a photograph should be supplied.

Wetland Impacts

Although the DEIS identifies wetlands within the project route, there appears to be insufficient information to determine to what extent they will be affected by the project. The proposed access roads and other associated structures should be located to avoid impacts to these wetlands. In instances where structures must be placed within or near wetlands, delineations should be completed to determine mitigation requirements.

Unmitigated Impacts

While the DEIS identifies the Environmental Consequences and provides means to avoid most of the potential environmental risks associated with the proposed project, it also itemizes impacts which cannot be avoided. We believe that the project will contribute to an increased level of habitat fragmentation and a reduction in available shrub-steppe vegetation for wildlife habitat.

Unmitigated impacts include the area of habitat which will be lost through construction of roads, improved roads, pulling and reeling, staging areas, substations, wetlands, water crossing structures, riparian corridors, and well as other cumulative impacts. While it is relatively easy to total the acreage of impacted habitats, cumulative impacts and disturbance associated with the projects are more difficult to assess.

Section S-2 of the DEIS indicates that the road disturbance associated with the preferred alternative will result in 15.8 miles of new road or more than 76 acres (15.8 miles x 5,280 ft/mile x 40 foot average road width) of habitat disturbance. It is not clear in the DEIS about the amount of additional vegetation or shrub-steppe impacts associated with improving and widening 40 miles of existing roads. Section S-2 also indicates that the tower pads will result in the loss of 90.0 acres (360 towers x 0.25 acre disturbance), and an additional 1.3 acres will be lost to substation installation. These figures add up to more than 167 acres of habitat that would be lost through implementation of the preferred alternative, not including impacts associated with wetlands, equipment staging areas, and conductor tensioning sites. The shrub steppe component of the lost habitat appears to be 51 acres (68 acres of vegetation - 17 acres of agricultural land) that will be permanently disturbed.

It appears that the total direct loss of shrub-steppe habitat will be between 50 and 100 acres. Direct loss may be reduced if restoration and revegetation work is implemented in the project corridor. Additional impacts to fish and wildlife which are likely to result from implementation of the preferred alternative includes, the lineal distribution of noxious weeds, bird strikes, some loss of ecological connectivity due to habitat fragmentation.

WDFW's mitigation policy is to seek greater than 1:1 mitigation ratios for impacts or direct loss of fish and wildlife habitat. Three to one (3:1) ratios are typically used. A 3:1 to 5:1 mitigation ratio is valid for shrub-steppe due to: 1) difficulty in restoring habitats in arid environments; 2) length of time to restore a climax community (20-30+ years for sagebrush); 3) fragmentation impacts beyond those of direct habitat lost by roads, towers etc. (e.g., transmission line built through a remnant block of shrub-steppe reduces the ecological connectivity and functionality of the whole block even though most habitat is not directly disturbed).

With consideration of expected cumulative impacts it appears that the preferred alternative will conservatively require acquisition or protection of a minimum of 150 to 300 acres of shrub-steppe habitat to mitigate for impacts which cannot be avoided.

It is difficult to evaluate impacts and develop suitable mitigation through a piecemeal approach whereby each project is considered individually and not in context with all BPA's proposals in south central and south eastern Washington. Independent biological assessments of the environmental impacts of multiple projects in shrub-steppe habitat often does not fully assess the combined cumulative effects on the landscape.

It is assumed that the other proposed projects associated with wind power, transmission lines, substations, and gas turbine power plants identified in the DEIS, will also require some

5 Comment Letters

Stacy Mason, BPA

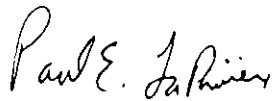
May 8, 2002

Page 4

mitigation. We strongly advocate the development of a comprehensive mitigation banking plan which consolidates necessary mitigation for all proposed projects. Scientific literature indicates that shrub-steppe habitat owes a great deal of its functionality to large, contiguous blocks, and mitigation banking is a valid means of mitigating for loss of shrub-steppe vegetation. Mitigation from each proposed project could be banked to secure large blocks of relatively intact shrub-steppe habitat. The mitigation banking effort could be coordinated through BPA's existing Fish and Wildlife programs.

Thank you for the opportunity to provide these comments. We look forward to meeting with you regarding mitigation opportunities and development of a comprehensive mitigation plan. If you have any questions, please contact me at (509) 545-2014.

Sincerely,



Paul E. LaRiviere
Area Habitat Biologist
larivpel@dfw.wa.gov

cc: SEPA Coordinator, WDFW
Clausing, WDFW, Region 3
Larsen, WDFW, Pasco
Teske, WDFW, Ellensburg



DEPARTMENT OF THE ARMY
PORTLAND DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2946
PORTLAND, OREGON 97208-2946

REPLY TO
ATTENTION OF:

Planning, Programs and Project Management

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: <i>MJD T-012</i> RECEIPT DATE: MAY 29 2002

Stacy Mason
Bonneville Power Administration
P.O. Box 3621-KEC
Portland, OR 97208-3621

Dear Ms. Mason:

We have reviewed the draft Environmental Impact Statement for the McNary-John Day Transmission Line Project. This document adequately addresses our concerns at this level of completion. There may be some specific issues to be addressed during future real estate transactions.

Thank you for the opportunity to review the document.

Sincerely,

Robert E. Willis
Chief, Environmental Resources
Branch

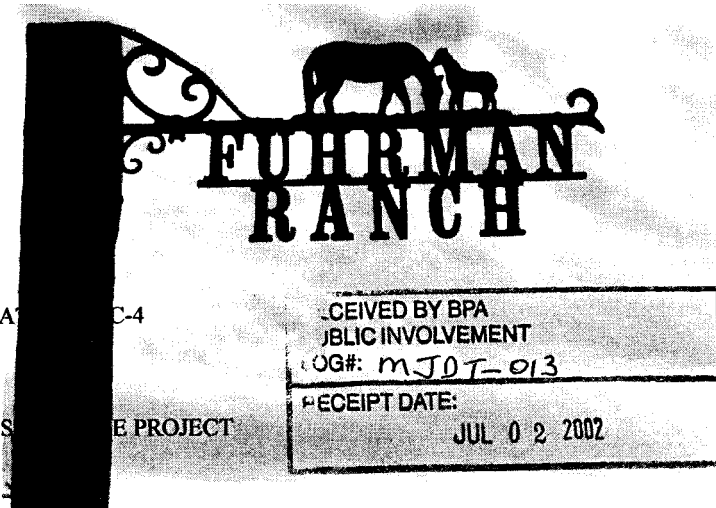
5 Comment Letters

JUNE 23,2002

STACY MASON
BONNEVILLE POWER ADMINISTRATION C-4
P.O. BOX 3621
PORTLAND, OREGON 97208

RE: MCNARY-JOHN DAY TRANSMISSION PROJECT

Dear Ms. Mason:



I am writing in concern of the "Fuhrman Ranch on Hwy. 14, Goldendale, Washington. My name is Ron Power, a grandson of the late Blanch and Jim Fuhrman. As you know the Fuhrman Family leases the house and garage from the Aluminum Co. which we have for 14 years, we are very grateful for this. I am the treasurer for the ranch fund, family members donate money for the lease, maintenance, and utility bills.

We were at the ranch for a family get together last month (memorial day). The neighbors Jane and Bob Lee had told us that one of the routes would take the barn and garage. I called Jesse Caudwell from the Aluminum Co. on Sat. for more info. She then told me that one of the possible routes would include the house. On Sunday at Jay Osborne's grandmother's memorial service we informed the family members of the possibility that the house may be included in the project. Jay said he knew a person at BPA and would check further into the matter.

I have been going to "THE RANCH" for the past 60 years. I know someone passing by would think it is just an old house out in the scrub rock, but to me and our family this place is "Our Roots" a feeling of belonging. We have taken our children to "THE RANCH" for the past 40 years, now our grandchildren are going also, they say, "it is the funniest place in the whole wide world."

Back in the 1950's when I was a young lad, I spent my summer vacation with my Grandparent's which has left me with a lot of memories, separating the milk with a hand cranked separator, feeding chickens, sour skimmed milk, making hay, enjoying Grandma Fuhrman's pancakes, baked bread and her brown beans.

We have had big family reunions every 3 years at "THE RANCH". We have decorated the walls with family pictures, family tree and etc. The thought of losing the house is very difficult for me and our children to accept!

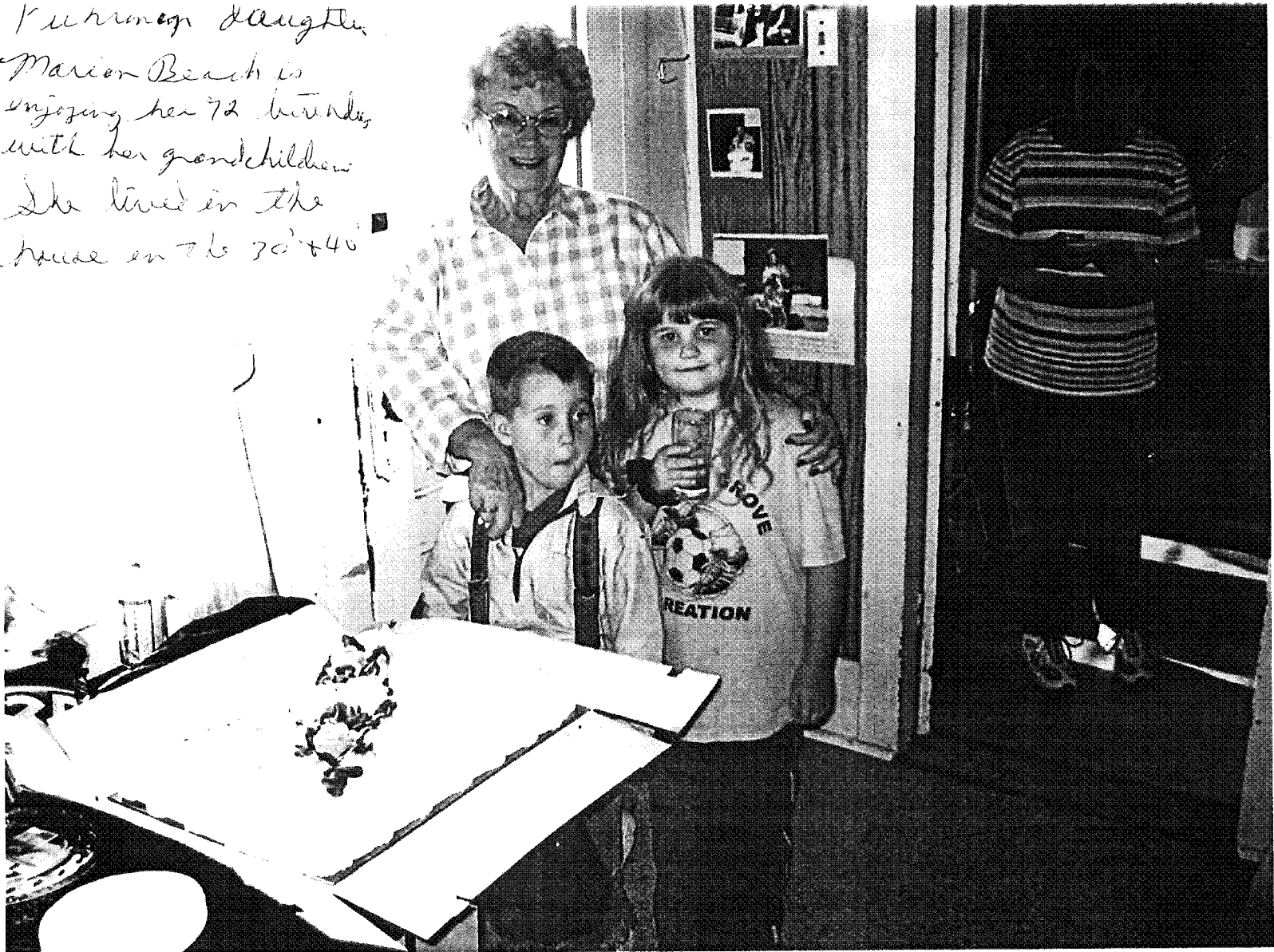
Thank you for considering our concerns,

RON POWER
10095 DISTRICT LINE ROAD.
BURLINGTON, WASHINGTON 98233

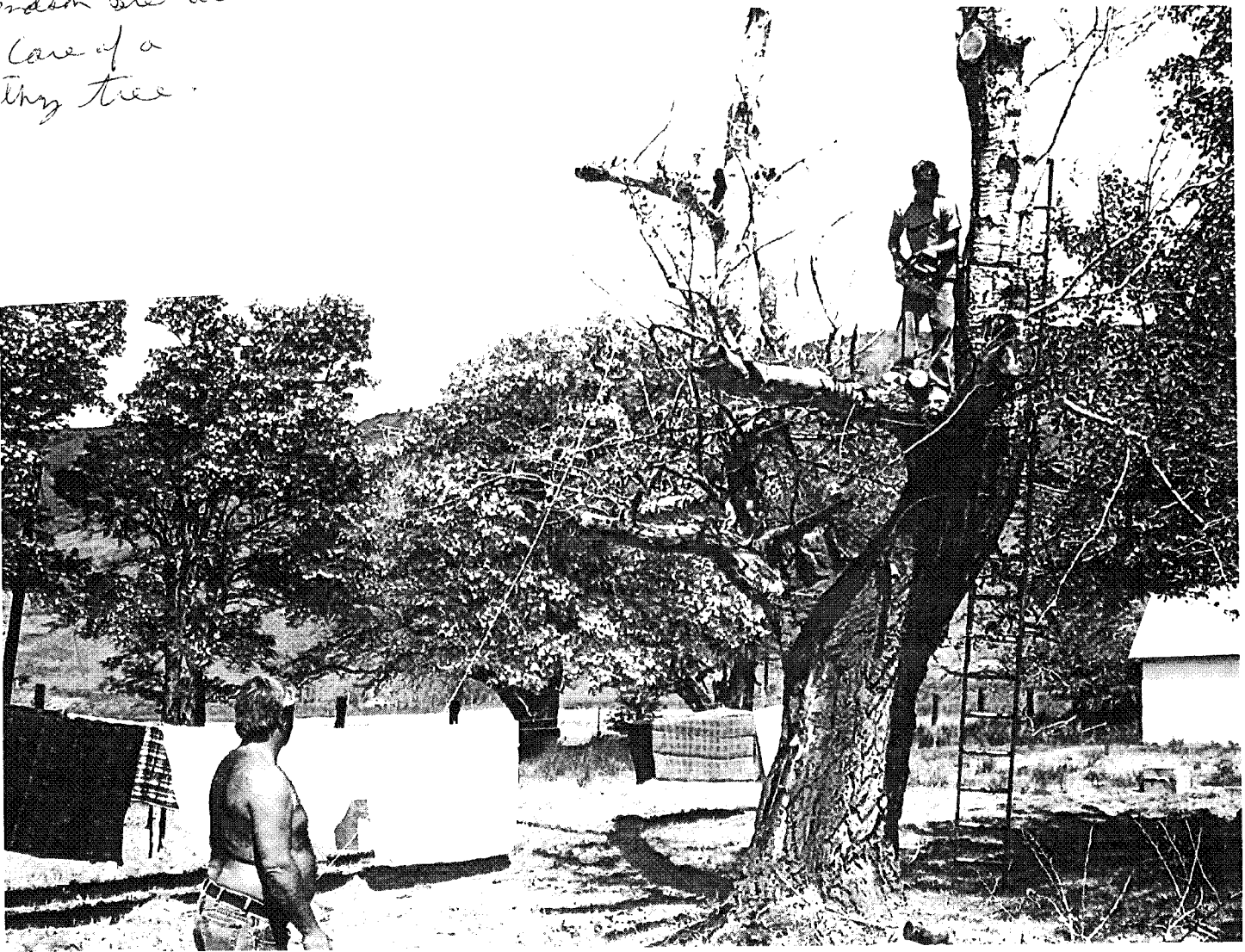
206-757-6762

enclosed are pictures of 2002 Memorial Day

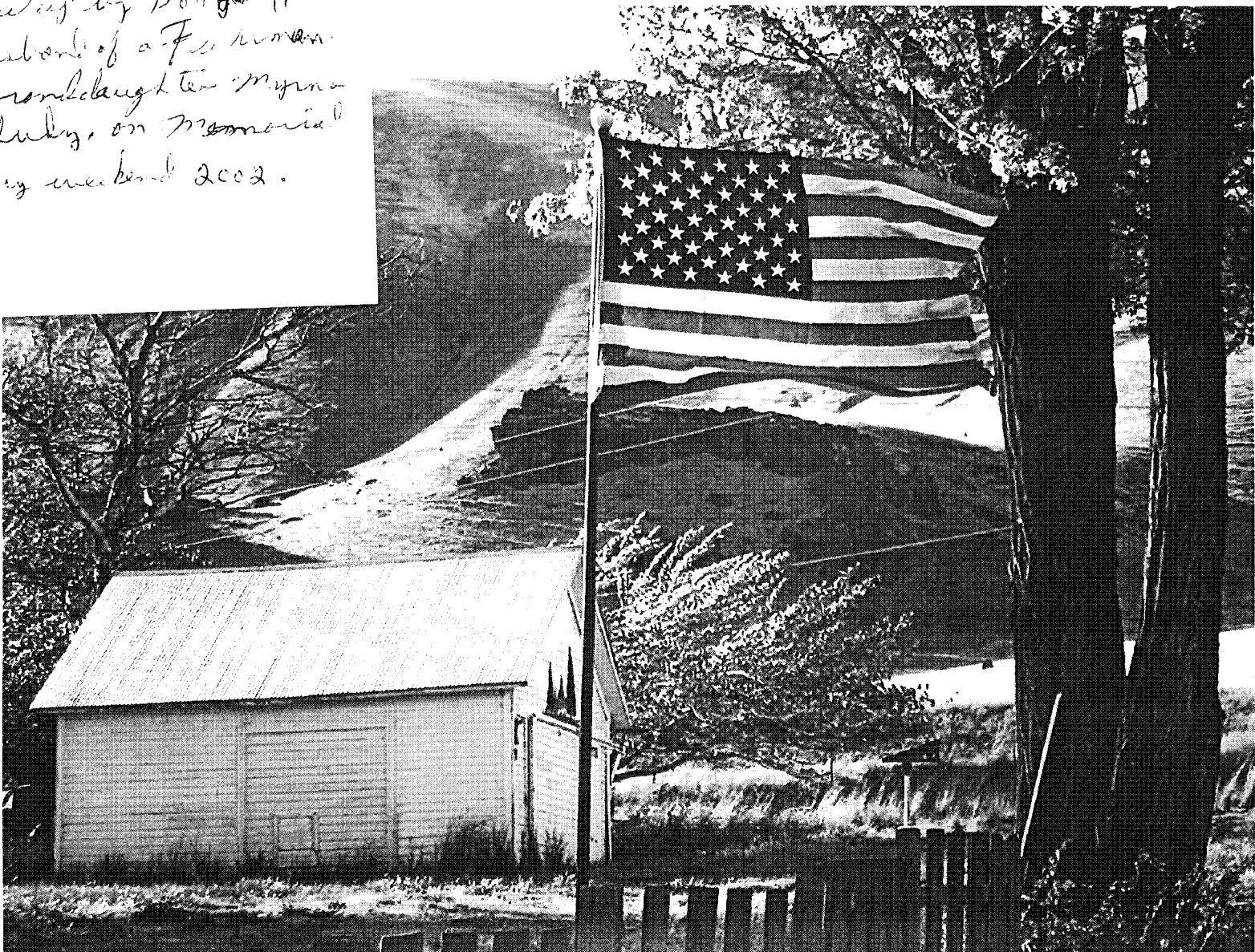
Kathleen's daughter,
Marion Beach is
enjoying her 72 birthday
with her grandchildren.
She lived in the
house in the 30's & 40's.



Laundon Rob and
Hestgronson are
taking care of a
unhealthy tree.



Two legions
Fighting by Don Judy,
husband of a former
granddaughter Myrna
Judy, on Memorial
Day weekend 2002.



Mason, Stacy L - KEC-4

From: MtnSage@aol.com
Sent: Wednesday, June 19, 2002 1:39 PM
To: slmason@bpa.gov
Subject: re: Fuhrman Ranch

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: <u>mJDT-014</u> RECEIPT DATE: JUL 02 2002
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June 18, 2002

Stacy Mason
Bonneville Power Administration KEC- 4
P.O. Box 3621
Portland, Oregon 97028

RE: McNary-John Day Transmission Line Project

Dear Ms. Mason:

I understand you are in the final stages of determining the placement of the power lines at my family's ranch.... The Fuhrman Ranch on Hwy 14 just east of John Day Dam. There is such a deep family history of the farm its seems impossible to me that it may "no longer be" a part of our large family. I appreciate your time and effort in understanding the value and history of this home and what it means to so many.

My parents lived there while my grandparents were working in Oregon to gather the funds to maintain the family ranch.. This was in 1944 the year I was born so the ranch was my first home. I don't remember ever not being a part of the ranch in one form or the other in my lifetime. After my grandparents returned to the ranch my parents moved into town but every weekend was spent at the ranch helping my grandparents or just for gentle family time. Summer evenings sitting on the lawn watching the moon rise over the river. The quiet coo of the doves early in the mornings as we awoke to Grandma cooking pancakes on the wood stove by the dozens for the crowd. The lawn filled with kids in sleeping bags during the summer. My childhood was shared with many cousins and the ranch was the meeting place for all of us. Many years and many people have their heart in this small spot of land.

My Grandmother moved to Vancouver to live with her daughter Maxine many years after my Grandpa passed away. At that time my Dad, Bus Fuhrman had just retired from the County Road Dept. He bought a herd of registered Hereford cattle and spent many years raising the cows on the family homestead. My children absorbed the ranch as part of their childhood and their roots as well. Summers were spent with my parents at the ranch tending to cattle and raising a large garden. Many Christmas seasons were spent on the ranch molding memories that form wonderful childhood roots. My Dad bringing a quarter of a beef down to the house on horseback in the snow and ice... A Christmas tree brought to the house dragging behind the horse. All the giggling and secrecy as the kids huddled in corners to wrap their presents for each other and for their grandparents. The stories go on and

01/23/02

on.

Now it is my grandchildren that are receiving the blessings of the large extended family and the reunions always held at the ranch. There is such strength and a sense of belonging that happens to everyone at the ranch. A place with a very strong history in the family and a place for the younger ones to feel their roots and hear the stories and share in the history of the family that is hung on the walls of the house.

Last Memorial weekend was the celebration of my 90 year old Mother's life. She passed away in April. My Mother and my Father are both children and grandchildren of pioneers in Klickitat County. Their newlywed home was on the hill just upriver a few miles from the ranch.

So you see it has been a huge part of the family for generations. When I consider the possibility that it may be torn down it and no longer available for all the generations it seems extremely difficult to consider.

I would be happy to meet you at the ranch Stacy to give you a tour and perhaps help you to understand the meaning of this historical value to Klickitat County as well as the emotional and historical value to our large family.

Thank you for your time and consideration.

Sincerely,

Mary Carol (Fuhrman) Douglas
5025 15 Mile Road
The Dalles, Oregon 97058
541-296-3236

07/27/02

5 Comment Letters

June 24, 2002

Stacy Mason
Bonneville Power Administration KEC-4
P.O. Box 3621
Portland, OR 97208

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: <i>mjt-015</i>
RECEIPT DATE: <i>JUL 02 2002</i>

RE: McNary-John Day Transmission Line Project

Dear Ms. Mason:

My name is Leon Fuhrman. I'm the grandson of Jim and Blanche Fuhrman of Klickitat County and the son of their fourth child Adrian Fuhrman. My parents were married at the ranch on June 12, 1938. I was born in Yakima, WN July 1939. I lived in the Vancouver, WA area near Ridgefield from the time my parents moved from Goldendale during the war until 1972 when I moved to Salem, OR. I had a productive and rewarding career with the Oregon State Department of Education working with deaf children and at-risk youth until my retirement in 1998.

First, I want to express my appreciation of your willingness to meet and discuss with our family the preservation of "The Ranch" as it is known to all of us kids. I, along with other family members were surprised to hear about the Transmission Line Project that may jeopardize the house, garage and barn. This property is indeed a family treasure and still, very much, a part of our lives.

If "Big Grammy" were still there, when we arrive for our meeting on the 8th, we would most likely be greeted with a pot of beans on the old cook stove (still there). For dessert she would offer one of her special gooseberry cobblers or perhaps a fresh baked batch of her famous cinnamon rolls. That gooseberry cobbler would sure make your mouth pucker when you'd eat it! But, after some added fresh, thick cream and more sugar (for my taste) there was nothing, nor will there ever be, anything quite like it. The pan she used to make those two delightful treats is still in the kitchen.

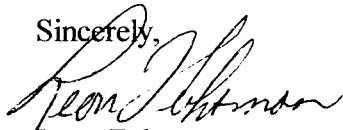
Every summer and on many holidays, since I can remember, there was always the anticipation and joy of going to The Ranch to see Big Grammy and Grandpa. My "Little Grammy" and Grandpa (my mother's folks) lived west of Goldendale at Blockhouse. The drive up to the Ranch from Vancouver, on what is now Highway 14, seemed like an eternity as our old "36" Plymouth made a beeline for Chamberlain Flats. "Are we there yet?" My brother and I'd ask that question, to what must have seemed to our parents, a hundred times as the three hour plus drive brought us closer to Big Grammy and her welcome hug. I can still feel her softness. That memory will never leave me. If I set my mind to it, I could write a book of life long lessons I learned and experiences I had during those summers at The Ranch. Helping my grandparents with the haying and other summer chores was one of the true joys of my life. If I worked really hard, at summer's end, Grandpa would reward me with a five-dollar bill! They and my aunts and uncles were truly the "Greatest Generation" and remain my heroes.

Fortunately, our family has been able to continue the tradition of gathering at The Ranch thanks to the lease we've had with the various owners of the aluminum company that bought the ranch in the seventies. About every two years we have a get-together we call the "Fuhrman Pow Wow." It brings in relatives from all over the northwest. We have three of the Fuhrman children remaining. Uncle Bus, Aunt Vera and Aunt Marian. It is a joy to gather with them at The Ranch and share many wonderful memories.

Even though many of the tall poplar and cottonwood trees, the lush spring-fed garden, the six foot high hollyhocks, the old wash room, the outhouse, the gate with the bells on it to announce our arrival have long since gone, in my mind's eye they remain. And when I'm having a quiet moment sitting on the porch at "The Ranch" looking at the marvelous view up the Columbia River, my mind goes back to those sunny summer mornings, and, I can still hear Grandpa's voice hollering up the stairs, "Time to get up. The hotcakes are on!"

I'm looking forward to our meeting on July 8th at the site of our family's roots.

Sincerely,



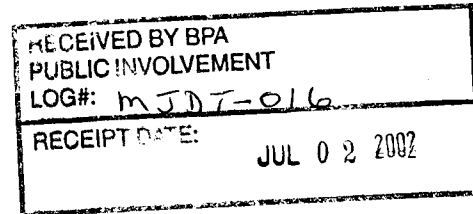
Leon Fuhrman
3390 Crestview Drive S
Salem, OR 97302

cc: Senators Patty Murray and Maria Cantwell
Congressman Doc Hastings
State Senator Jim Honeyford
Representatives Bruce Chandler and Barb Lisk
Klickitat County Commissioners Don Struck, Joan Frey and Ray Thayer

5 Comment Letters

June 17, 2002

Stacy Mason
Bonneville Power Administration KEC-4
P.O. Box 3621
Portland, OR 97208



RE: McNary-John Day Transmission Line Project

Dear Ms. Mason:

Thank you for speaking with me about the McNary-John Day Transmission Line Project. I appreciate the opportunity to discuss the fate of my great-grandparents ranch, the Fuhrman Ranch on Highway 14. I understand you are in the final stages of selecting among three alternatives for the placement of a new power transmission line that would run for 79 miles. Two of those alternatives would require the removal of some or all of the buildings on the Fuhrman Ranch.

I am concerned that the historical value of this property was not evaluated during the EIS. The house dates from the 19th century and the barn and garage are over 50 years old. I appreciate your offer to have the consultants go back out to update this part of the EIS. The Burke Museum also holds the archeological records for sites not on the state register that came from the fieldwork done in the late 1960's when the John Day Dam was built.

I appreciate the need for more power but am concerned about the plan to divert the power lines across the road for two miles right through our Ranch. Bonneville Power already has the right way across the highway for the existing power transmission lines and I would urge you to use the existing right of way and avoid the demolition of our family Ranch.

I know the consultant will be able to evaluate the public historical value of the ranch and buildings, however I want to share with you the living tie my family has with this Ranch. Some of my earliest memories are going to visit my great-grandmother Blanche Fuhrman when she still lived at the Ranch in the late 1960's and early 1970's. My great-grandfather James Fuhrman had died before I was born and she lived out at the Ranch alone for 25 years. She kept a gun behind the kitchen door to deal with rattlesnakes and other pesky creatures. She was a prolific gardener and baker. I would drive up with my grandparents and go in the gate past all of the roses and hollyhocks and she would always come out to greet me. My great-grandmother was a big lady. She kept a mirror on the wall in the kitchen and when folks would drive up

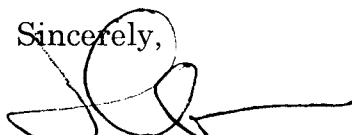
My grandmother died in April of this year. I just spent a weekend at the ranch to celebrate her life and to go to the Alder Creek Pioneer Association's annual picnic and rodeo. My grandmother was honored there at the memorial program. She was born in 1911 in the hills above the Ranch and spent her whole life in this area.

The thought that the Ranch will be torn down and one of the last connections I have to the generations who have gone before is very difficult for me to face.

I would like to have the opportunity to meet you at the Ranch and share some of the family history with you. I have many cousins, aunts, uncles and other relatives who would like to join in this effort. Monday July 8th or Friday July 12th or Monday July 15th would all work for us. Come see the walls, hear the stories and meet the people your decision will impact. Please weigh in the historical and emotional value of this property in your decision-making. Too many family homesteads have been torn down and lost that can never be replaced.

I appreciate your considering my request and look forward to hearing from you.

Sincerely,



Jay Osborne
PO Box 4678
Seattle, WA 98104

cc: Senators Patty Murray and Maria Cantwell
Congressman Doc Hastings
State Senator Jim Honeyford
Representatives Bruce Chandler and Barb Lisk
Klickitat County Commissioners Don Struck, Joan Frey and Ray Thayer



June 18, 2002

Stacy Mason
Bonneville Power Administration KEC-4
P.O. Box 3621
Portland, OR 97208

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: <u>mJDT-017</u> RECEIPT DATE: JUL 02 2002
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RE: McNary-John Day Transmission Line Project

Dear Ms. Mason:

I have just learned of the McNary-John Day Transmission Line Project that may impact the land of my Grandparents James D. and Blanche L. Fuhrman. I so appreciate my cousin's son, Jay Osborne, for alerting the family to the possibility of this project requiring the removal of some or all of the buildings on the Fuhrman Ranch on Highway 14.

We all appreciate the need for added power, but as a family we implore you to reconsider using the existing right of way instead of using the ranch land. It is difficult to think that destroying something that is appreciated by so many, and holds such strong ties for us, can be a possibility. Cousins, aunts, and uncles donate time and money to keep the yard up and the exterior of the house in repair.

My Mother, Maxine, was the sixth child of Jim and Blanche. My Father, who really never had a family life to speak of, felt that Jim and Blanche were his parents as well. So, often we would go for visits to the ranch. We kids would have races to see who could reach the gate first because it had horse bells attached to it, and we wanted to be the one to announce our arrival by shaking the bells.

We are a large family with historical, ancestral roots in this area, and much of the entire Goldendale and surrounding areas. Martin Fuhrman, father of James D., and James Beeks, father of Blanche, were early pioneers of Klickitat county and entitle us to receive certificates as descendants of pioneers.

The ranch house dates back to the mid 1800's and holds for all of us the memories of a close, large, family who came together in thick and thin to help one another and celebrate life and family. Family was certainly the most important factor for Blanche and her husband.

Some of my own personal memories are of my Grandfather having a pet deer he called Isabelle. We have pictures of Grandfather, my Father, my sister, and me with Isabelle.

I can smell the buttermilk pancakes that my Grandfather cooked on Sunday mornings. Then my Grandmother would make a spice cake or

5 Comment Letters

cookies out of the left over dough. We would gather gooseberries and Grandmother would make a cobbler out of it. There was always apple butter in the cool cupboard for the homemade bread, made on the wood stove. And, none of us will ever forget Grandma's cinnamon rolls that were the best treat a kid could want at the time.

Our Grandparents went through a lot of difficult times, and through hard work and dedication, were able to keep this ranch and their family together. Grandmother lived at the ranch by herself for many years after our Grandfather died in 1959. She was never afraid and always said that God was with her so she had nothing to fear.

Grandmother loved flowers, and when they were in season, she always had some floating in a bowl of water on the table.

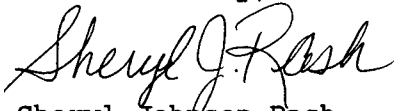
I had my first horse ride there. We had picnics in the front yard. We'd get to ride in the back of Grandpa's pickup truck with the wind blowing in our faces.

Each Memorial weekend the ranch is attended my some family. Every few years there are family reunions on Memorial weekend that I have come from Texas to attend. We do so because we are family, branches of Blanche and Jim. We come to pay tribute to them, and those who have passed, and to try to show our children what family is all about.

There are so many stories, so much history, so many happy times and of course some sad times, but we are family and it would take away from us a part of the tie that binds us together to have that land disturbed.

Thank you for your consideration in this matter.

Most sincerely,

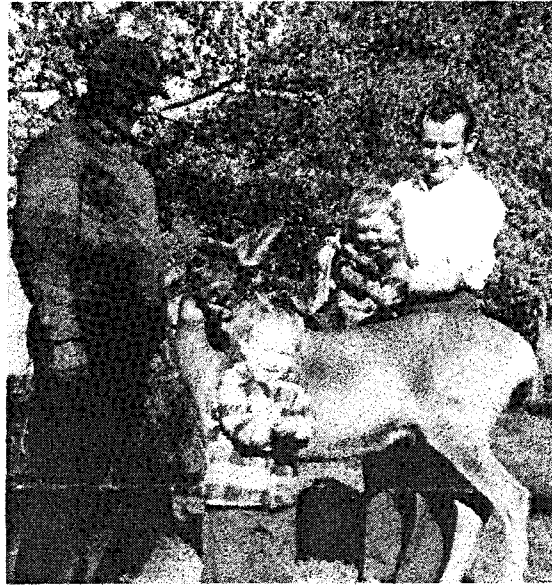


Sheryl Johnson Rash
2226 Briarview Dr.
Houston, TX 77077
281-584-0135

cc: Senators Patty Murray and Maria Cantwell
Congressman Doc Hastings
State Senator Jim Honeyford
Representatives Bruce Chandler and Barb Lisk
Klickitat County Commissioners Don Struck, Joan Frey and Ray
Thayer



Maxine around three years old.



Grandpa Jim, Sheryl, Kay, and Gene Johnson with Isabel, the hand raised baby deer. (About 1948)

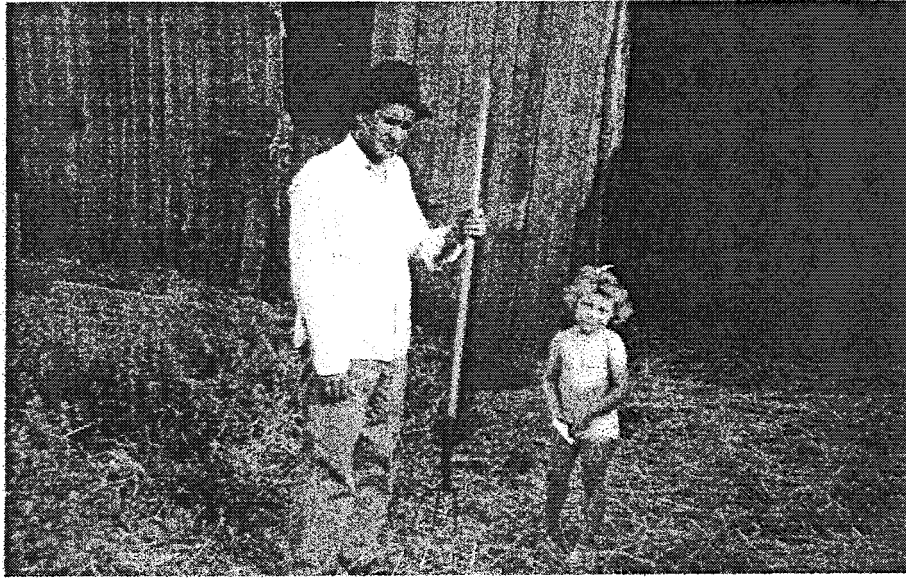


B. Row: Maxine Fuhrman Johnson, Marian Fuhrman Beach, Blanche and Jim Fuhrman. F.Row: Kay Johnson Clow, Linda Beach Hoover, Sheryl Johnson Rash Kasse, Rod Beach. At The Ranch. (about 1950)



.This is a special picture of Blanch and Jim at the wood stove in the late 1940's or early 1950's. It shows just how they are remembered by their family. You can see that Blanche is preparing pancakes for breakfast. No need for a griddle here as the top to the stove worked as well. Notice the hot water tank. The water would flow through pipes in the fire box of the stove wherethe water would be heated, much more convient than pots of water heating on the stove. Comparing this picture to the previous kitchen picture is interesting as the wood stove was saved for all its advantages, such as winter heat, and the electric stove was added for its advantages, such as cooler cooking. The water heater is gone, replaced by an electric one in the laundry room.

Many good times were shared in the warm and welcoming kitchen as Jim and Blanche's children, grandchildren, and great grandchildren will be the first to tell. The kitchen is still a center of family gatherings as the house continues to be available to the family thanks to the efforts of Bus and Virgil Fuhrman, Ron and Mary Ann Power, and Don and Myrna Judy and the help and contributions of other family members.



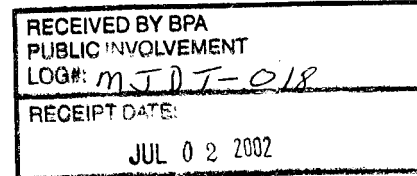
Gene Johnson and daughter Sheryl at the Fuhrman Ranch
About 1949

5 Comment Letters

Mason, Stacy L - KEC-4

From: Darlene Hunter [dhunter@dns1.sjcoe.net]
Sent: Saturday, June 29, 2002 9:26 AM
To: slmason@bpa.gov
Subject: Fuhrman Ranch

June 29, 2002



Stacy Mason
Bonneville Power Administration KEC-4
P.O. Box 3621
Portland, Oregon 97208

RE: McNary-John Day Transmission Line Project

Dear Ms. Mason:

My family has informed me about the proposed power transmission lines near or across the Fuhrman Ranch on Highway 14. I am very relieved to know that a third choice exists and if chosen, would not require removal of the Ranch buildings.

I realize that you have heard from other family members with regard to what a special place the Ranch is for our family. I remember when the aluminum plant was built and the company bought the ranches down wind to void suits due to any air pollution from the smoke stacks. There were many family conferences about what could be done to save the Ranch. A rental agreement was worked out and has worked for all these years. Members of the extended Fuhrman family contribute to the rental fund.

We live in California and therefore are not able to use the Ranch as often as the Washington and Oregon family members. Even so we share the concerns of the rest of the family. The Ranch has been the center of our extended family since I can remember from the late 1930's to the present day. Normally the passing of the widowed family matriarch would weaken the family bonds, but the Ranch has extremely strong threads that bind us all in an amazing and very satisfactory way. Needless to say we will do what ever we can to maintain that bond.

In 1999 sister, Myrna Judy, mother, Vera Power and I wrote a family history using family pictures, captions, and stories. It was a year long task. We are now in the process of up dating that history. Unfortunately much of the update involves the passing of the older members of the family. It would be extremely difficult to write about the death of the Ranch.

Thank you very much for your kindness in listening to our family views. I know you will do the best you can to be helpful to us.

Sincerely,

Darlene Power Hunter
Granddaughter of Blanche Fuhrman

**McNary-John Day 500kv Transmission Line Project
Public Meetings**

Draft EIS COMMENTS

HCC = comments made on 04/08/02 public meeting at Hermiston Community Center, Hermiston, OR
PS = comments made on 04/09/02 public meeting at Paterson School, Paterson, WA
RS = comments made on 04/10/02 public meeting at Roosevelt School, Roosevelt, WA

RS	When will a decision be made on the project?
HCC	How will you tie into bays at McNary?
HCC	What will the capacity of the line be?
HCC	How much will Newport use?
HCC	Last guy on the system is the first one off if generation exceeds capacity of line.
PS	Is the construction of this line contingent on signing up enough customers?
RS	On the existing generating projects redundancy and transfer capabilities already built into the system.
RS	What will make California short on power again?
RS	How long will this line carry it before needing another?
PS	Does this project impact the Mercer Ranch Project?
PS	What is the status?
RS	Your map should also show the existing generation facilities, rather than just the proposed sites.
RS	Are you still doing an EIS on Starbuck?
PS	How far along are you in the project process?
RS	Looks like my comments from scoping were addressed in the EIS.
RS	Will there be another opportunity to comment, after this comment period?
PS	What is the latest proposal at 68/6? (Where Hanford-John Day comes in)
PS	Would prefer BPA to cross/stay north side and span at 70/1 - 70/2, to avoid archaeological site.
PS	Would prefer alternative at 68/6, moving line to the north.
PS	Did you look at the alternative of building the line on the Oregon side?
RS	When will you know whether you will reroute around tribal parcels?
RS	The barn on Goldendale Aluminum's property will need to be removed since it is in the new right-of-way. Will you rebuild barn?

5 Comment Letters

RS	We're concerned about where you're crossing; can you avoid the hayfield owned by the Lee's? (See sheet 68)
RS	How many more pieces like this one are along the way? (Alternative at Corr. Mile 32)
RS	Is there any way you could draw out the alternative at mile 32 on a photomap?
RS	It would be easier to relocate eight (8) towers at corridor mile 69 and 70 rather than purchase new right-of ways.
RS	It wouldn't have so many jogs in the line or road crossings.
RS	What are the options around 32/1?
RS	If you stay on the north side, you'd avoid highway crossings and it would look a lot better having all the lines running parallel to one another.
HCC	Where is this project in regard to funding?
HCC	How certain is funding?
HCC	Was project put in budget for full funding?
HCC	You're already talking about third party financing.
HCC	How much will project cost, including interconnecting to substation?
HCC	With the current energy situation, do really think you'll be able to get third party financing?
PS	Where is the funding for this project coming from?
PS	Do the increased funds at the legislative level affect this project?
RS	You're looking at how many million to put the project up?
PS	It's convenient that there is a wide enough right-of way to accommodate the New Line.
PS	Will towers be on the North or South side of existing towers?
PS	It is east to work in corridors miles 69 and 70; it's relatively flat and not too rocky.
RS	If BPA moves an existing tower, how will the area be restored?
RS	How much of the tower and base will be left?
RS	Do you construct every tower on -site?
RS	What size equipment do you bring in?
RS	Do you use concrete for the tower footings?
RS	How much more does the 500-kV cable weigh as compares to the existing lines?
RS	Would like to see an access plan between Sundale and Rock Creek.
RS	Whose responsibility is it to maintain the roads? Will you make sure it is in as good of shape after construction, as it was before construction?
RS	How much right-of-way is needed in the 68-mile area? (68/5 - 70/1)
RS	If you could put towers near 33/1 you won't have a problem.
RS	What are we doing at 67/1?
RS	It would be no problem building a tower at 68/1.

RS	How far can you span between two towers?
RS	You'll have to buy right-of-way from the Aluminum Plant.
RS	What type of towers will be used?
RS	Is there any plan to use wide right-of ways at this place? (T7NRZIE Sec. 14, 12 GL ENN Williams)
RS	Where would the other tower end up (near tower 33/1)? Could you re-engineer this section and show me on a map?
RS	Access roads, if we use an access road for other things, will they be put back in original condition? Who does that?
RS	Would you rather have the lines next to each other?
RS	Access roads—look at graveling roads from county road up to maintenance road.
RS	A four (4) mile fire guard runs down Rock Creek, surveyors have to drive down and need to turnaround to come back.
HCC	Assuming you get funding, What is the timeline?
PS	When would the project get started?
PS	I was expecting to see some towers being put up on the side of the road.
RS	When will construction start?
RS	Is it possible to construct this area in the winter?
PS	Are you doing studies for traditional cultural properties review? (Tribal)
PS	Archaeology site - you've done surveys?
PS	Know of lots of arrowheads near John Day.
RS	There are a lot of caves around corridor miles 52 and 53.
RS	[Correction] - text of DEIS - Chapman Creek named after Joe Chapman, who established a wood yard for steamers at the mouth of creek in 1859. (Pg. 3-80 of DEIS)
RS	Pioneer cemetery 1870s/80s, 4 headstones, used to be more wooden crosses but burned in fires.
RS	There are a lot of caves along the flats. (See sheets 68-72)
PS	State is going to give up lease on Maryhill & Crowe Butte Parks.
RS	We're going to lose a lot of access if they're located where they are proposed at "Sundale Orchards".
RS	If BPA goes through the orchard I'll have to take out trellises and trees. (Sundale Orchards)
RS	A jog of 50-75 feet at towers 54/2 and 54/3 would solve problem of having to remove trees.
RS	Don't want concrete trucks to show up during harvest!
RS	Harvest during 2nd week of August, and 2nd week of November, working on trees in December.
RS	Plans to expand orchards on either side, but permits with Department of Ecology are difficult.

5 Comment Letters

RS	We use the barn owned by Goldendale Aluminum Company for hay.
RS	Can towers be shifted to get them out of the orchards?
RS	Trees become severely damaged by wind, when populars are cut fruit gets damaged. Used to have a limit of 16ft. But ROWs allowed to grow to 20 feet that helps.
RS	I'm concerned that the roads used by BPA and its contractors will be left damaged and not repaired. Problems have occurred in the past and damages were never repaired, even after calls had been placed to BPA.
RS	Gates with livestock are inadvertently left open. The clock will start the minute I stop my work to remedy the situation in taking care of my cattle, due to gates being left open.
RS	Wheat harvest is from July 1st - 20th, and we plant from September 10th - November 1st.
RS	EIS states, No "Prime Farmland", although there may be much in this area, there is some good irrigated farmland. ----- Sundale Orchards
RS	Perhaps you can place taller towers so that you can span the irrigated farmland?
RS	M-BE-AR-54-1, Need to reroute road around orchard, rather than through it.
RS	Registered block where we can grow certified plants. (i.e.: disease free, etc...) near tower 33/1
RS	Irrigation at 33/1 drip system (permanent - doesn't move around).
RS	We spoke with Bill Erickson at BPA about wind machines on our property. (Near 33/1)
RS	Harvest is in September - October, for Alder Ridge.
RS	We harvest in May (alfalfa) and generally cut again at the end of June. (Sheet 68)
PS	Does the EIS address the alarms all along highway for Umatilla Gas Incinerator?
PS	Put in contracts so that workers know about emergency preparedness. (Have small radios that will tell them what to do)
RS	Concerned about fires from problems with the line.
RS	Flash over due to bird droppings.
RS	Fires ---- Any hint of negligence, and fire department will pursue and so will landowners!
RS	Has a fire ever cut the wire in two?
RS	Grass fires are fairly common. The railroad set a fire in August of 2001, sparks off the railcars.
RS	One gate is still sparking at 66/6 tower McNary-Ross. (Fence needs to be grounded, to do so, and talk to maintenance).
RS	Tower has arcing problems due to bird droppings. (88/5 Hanford-John Day Line)
RS	How tall will the new towers be when you cross over to the south side of the highway? (Sheet 68), We're concerned about clearance since we hay in this area.

RS	In winter - low fire hazard, but greater risk of damage to roads.
PS	What happens to land values around new substations?
PS	Are there job opportunities associated with this project?
PS	Is there a process so that local people will be hired for this project?
PS	If you don't hire local people, you'll have a problem ~ guaranteed!
RS	What is the process the landowner can expect if we relocate the easement and move towers?
RS	What's the process for paying on the additional right-of-way needed?
RS	What is involved with getting right-of-way from landowner?
RS	Can you condemn the Indian land?
RS	You'd have a pretty long span at 66/1 because it is so steep there.
RS	Corps considered permits for Glade Creek. (Water of the state)
PS	Are you getting Corps permits for creek near Mercer Ranch?
PS	I'm assuming the weed board will follow up on noxious weeds?
RS	I also understand that you'll evaluate weeds after construction.